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## **Isolated Loop Circuit Protectors - Component**

### COMPANY

Mark

### LITTELFUSE INC

6133 N. River Rd, Suite 500 Rosemont, IL 60018 United States

E230531

Marking: Company name or trademark **I Littelfuse**, LF or F, model designation, and the Recognized Component

Note: For additional marking information, refer to the <u>Guide Information Page</u>.

Asymmetric TVS Diode, "TPSMB Asymmetric", Model(s): Asymmetric TPSMB followed by 15, 18, or 20, followed by 05, followed by CA

**SMF**, Model(s): SMF followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54(+), 58(+), 60(+), 64(+), 70(+), 75(+), 78(+), or 85(+), followed by A or CA. Models may be suffixed by additional alphanumeric characters indicating packaging options. (+) The component may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Thyristors, surface mount or axial, unidirectional or bi-directional, "3T Series",** Model(s): 3T, followed by 064, 071, 080, 110, 130, 150 or 180, followed by ALC, ALL, BLC, BLL CLC or CLL. Model may be preceded by prefixes or followed by suffixes.

**Thyristors, surface mount or axial, unidirectional or bi-directional, "3T Series",** Model(s): 3T, followed by 110, 130, 150, 180, 230, 260, 310, 350 or 400, followed by -A, -Al, -B, -BL, -C or -CL. Model may be preceded by prefixes or followed by suffixes.

**Transient voltage suppression diodes (200W),** Model(s): SMF15A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF16A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF17A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF18A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF20A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF22A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF24A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF26A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF28A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF30A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF33A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF36A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF40A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF43A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF45A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF48A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF51A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W),** Model(s): SMF54A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (200W)**, "**SMF Series**", Model(s): SMF10A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, "**SMF Series**", Model(s): SMF11A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, **"SMF Series"**, Model(s): SMF12A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, **"SMF Series"**, Model(s): SMF13A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W), "SMF Series",** Model(s): SMF14A May be followed by suffixes to denote packaging color code and customer requirements

Transient voltage suppression diodes (200W), "SMF Series", Model(s): SMF5.0A May be followed by suffixes to denote packaging color code and customer requirements

Transient voltage suppression diodes (200W), "SMF Series", Model(s): SMF6.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W), "SMF Series",** Model(s): SMF6.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, **"SMF Series"**, Model(s): SMF7.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, "**SMF Series**", Model(s): SMF7.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W)**, "**SMF Series**", Model(s): SMF8.0A May be followed by suffixes to denote packaging color code and customer requirements

Transient voltage suppression diodes (200W), "SMF Series", Model(s): SMF8.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (200W), "SMF Series",** Model(s): SMF9.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W),** Model(s): SMA6L36A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L40A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L43A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L45A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L48A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L51A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L54A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L58A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L60A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L64A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L70A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L75A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L78A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L8.0A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L8.5A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): SMA6L85A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L36A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L40A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L43A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L45A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L48A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L51A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L54A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L58A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L60A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L64A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L70A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L75A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L78A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L8.0A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA6L85A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W),** Model(s): TPSMA8.5A May be followed by suffixes to denote packaging color code and customer requirements.

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L10A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L11A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L12A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L13A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L14A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L15A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L16A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L17A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L18A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L20A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L22A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L24A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L26A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L28A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L30A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): SMA6L33A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L5.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L6.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L6.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L7.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L7.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): SMA6L9.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, "**SMA6L Series**", Model(s): TPSMA6L10A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L11A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L12A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L13A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L14A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L15A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L16A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L17A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L18A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, "**SMA6L Series**", Model(s): TPSMA6L20A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L22A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L24A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L26A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L28A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L30A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L33A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): TPSMA6L5.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, "**SMA6L Series**", Model(s): TPSMA6L6.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): TPSMA6L6.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W), "SMA6L Series",** Model(s): TPSMA6L7.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, "**SMA6L Series**", Model(s): TPSMA6L7.5A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppression diodes (600W)**, **"SMA6L Series"**, Model(s): TPSMA6L9.0A May be followed by suffixes to denote packaging color code and customer requirements

**Transient voltage suppressor (axial leads), "LCE Series",** Model(s): LCE, followed by 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 85, or 90, followed by A. Model may be preceded by prefixes or followed by suffixes.

Transient Voltage Surge Suppressor, Model(s): 8.0SMDJ38CA-ZT Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor,** Model(s): SACB, followed by 5.0, 6.0, 7.0, 8.0, 8.5, 10, 12, 15, 18, 22, 26, 30, 36, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, or 150 - A lightning discharge event may cause the voltage breakdown level to be less than the rating.

**Transient Voltage Surge Suppressor, "15KPA and TP15KPA Series",** Model(s): 15KPA or TP15KPA, followed by 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 200, 220, 240, 260 or 280, followed by A, C, CA, A-HR, CA-HR, A-HRA, or CA-HRA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "1KSMB Series",** Model(s): 1KSMB, followed by 6.8, 7.5, 7.6, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82\*, 91\*, 10\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\* or 180\*, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "20KPA and TP20KPA Series",** Model(s): 20KPA or TP20KPA, followed by 20, 24, 26, 28, 30, 32, 34, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 80, 88, 96, 104, 112, 120, 132, 144, 160, 172, 180, 192, 204, 216, 232, 240, 256, 280 or 300, may be followed by A, C, CA, A-HR, CA-HR, A-HRA, or CA-HRA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "3KP and TP3KP Series",** Model(s): 3KP or TP3KP , followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 200 or 220, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "4.0SMDJ Series",** Model(s): 4.0SMDJ, followed by 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43 or 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160 or 170, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "5.0SMDJxxXS Series",** Model(s): 5.0SMDJ followed by 6, 6.5, 7, 7.5 8, 8.5, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, or 58, 60, 64, or 70, may be followed by A or CA, followed by S. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "5KP",** Model(s): 5KP followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 190, 200, 210, 220, 250, 300, or 350 may be followed by A or CA, may be followed by -B.

**Transient Voltage Surge Suppressor, "BZW04P Series",** Model(s): BZW04, may be followed by P, followed by 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 19, 20 or 23, may be followed by V, B or VB. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "P4SMA Series",** Model(s): P4SMA, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, 100, 110, 120, 130, 150, 160, 170, 180, 200, 220, 250, 300, 350, 400, 440, 480, 510, 530, 540, or 550, followed by A or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "P6SMB, P6KE, and TP6KE Series",** Model(s): P6SMB, P6KE or TP6KE, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47\*, 51\*, 56\*, 62\*, 68\*, 75\*, 82\*, 91\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 200\*, 220\*, 250\*, 300\*, 350\*, 400\*, 440\*, 480\*, 510\*, 520\*, 530\*, 540\*, or 550\*, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated

voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SA and TPSA Series",** Model(s): SA or TPSA, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SAC Series",** Model(s): SAC, followed by 5.0, 6.0, 7.0, 8.0, 8.5, 10, 12, 15, 18, 22, 26, 30, 36, 45, 50, 55, 60, 70, 75, 85, 90, 95, 100, 110, 120, 130, 140, or 150. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SLD, TLP, and TLPA Series",** Model(s): SLD, TLP, or TLPA, followed by 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85 or 90, may be followed U, followed by -017 or -018. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SLD5S Series",** Model(s): SLD5S, followed by 14, 15, 16, 17, 18, 20, 22, 24, 26, 27, 28, 30, 33, 36, or 40, followed by A. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SLD6S Series",** Model(s): SLD6S, followed by 14, 15, 16, 17, 18, 20, 22, 24, 26, 27, 28, 30, 33, 36, 40, 43, 48, or 57, followed by A. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SLD8S Series",** Model(s): SLD8S, followed by 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 27, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 57, 58, 60, 64, 70, 75, 78, 85 or 90, may be followed by A or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SMA6J Series",** Model(s): SMA6J, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, 70\*, 75\*, 78\*, 85\*, 90\*, 100\*, 110\*, 120\*, 130\*, 154\*, 170\*, or 188\*, followed by A or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SMAJ Series",** Model(s): SMAJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 188, 200, 220, 250, 300, 350, 400, or 440, followed by A or CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SMBJ Series",** Model(s): SMBJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, 70\*, 75\*, 78\*, 85\*, 90\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 188\*, 200\*, 220\*, 250\*, 300\*, 350\*, 400\*, or 440\*, may be followed by A, C, CA, A-HR, CA-HRA, CA-HRA, A-VR or CA-VR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SMCG or TPSMCG Series",** Model(s): SMCG or TPSMCG, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 34, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100\*, 110\*, 120\*, 130\*, 150\*, 160\* or 170\*, followed by A-HR or CA-HR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SMCJ Series",** Model(s): SMCJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 200\*, 220\*, 250\*, 300\*, 350\*, 400\*, or 440\*, may be followed by A, C, CA, A-HRA, CA-HRA, A-VR or CA-VR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SMCJ-HR Series",** Model(s): SMCJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100\*, 110\*, 120\*, 130\*, 150\*, 154\*, 160\*, 170\*, followed by A or CA, followed by -HR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \*

may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000  $\mu$ S lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "SMDJ or TPSMD Series",** Model(s): SMDJ or TPSMD , followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 200, 220, 250, 300, 350, 400 or 440, may be followed by A, C, CA, A-HR, CA-HR, A-HRA, CA-HRA, A-VR or CA-VR. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "SMDJ-1000 Series",** Model(s): SMDJ, followed by 6.0, 6.5, 7.0, 7.5, 10, 11, 13, 24, 36, 40, 43, 48, 63, 70, or 75, followed by A or CA, followed by -1000. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "TP1.5KE and 1.5KE Series",** Model(s): TP1.5KE or 1.5KE, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, 100, 110, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 200\*, 220\*, 250\*, 300\*, 350\*, 400\* or 440\*, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "TP30KPA",** Model(s): TP30KPA, followed by 28, 30, 33, 36, 39, 42, 43, 45, 48, 51, 54, 58, 60, 64, 66, 70, 71, 72, 75, 78, 84, 90, 96, 102, 108, 120, 132, 144, 150, 156, 160, 168, 170, 180, 198, 216, 240, 232, 258, 260, 270, 280, 288, or 300 may be followed by A, C, CA, A-HR, CA-HR, A-HRA, or CA-HRA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressor, "TP4SMA, TP4KE and P4KE Series",** Model(s): P4SMA, TP4SMA, TP4KE or P4KE, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33\*, 36\*, 39\*, 43\*, 47\*, 51\*, 56\*, 62\*, 68\*, 75\*, 82\*, 91\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\* or 200\*, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**Transient Voltage Surge Suppressor, "TP5KP",** Model(s): TP5KP , followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 200, 220 or 250, followed by A, C, CA, A-HR, CA-HR, A-HRA, or CA-HRA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressors, "3.0SMCJ Series",** Model(s): 3.0SMCJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, or 58, followed by CA. Model may be preceded by prefixes or followed by suffixes.

**Transient Voltage Surge Suppressors, "5.0SMDJ Series",** Model(s): 5.0SMDJ followed by 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 140, 150, 160 or 170, followed by A or CA.

**Transient Voltage Surge Suppressors, "TP5.0SMDJ",** Model(s): TP5.0SMDJ followed by 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 140, 150, 160 or 170, followed by A or CA

TVS Diode, Model(s): SMF4.0, STVS30A

**TVS Diode,** Model(s): 1.5SMB , followed by 20, 22, 23, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, or 100, followed by A or CA. Model may be preceded by prefixes or followed by suffixes.

**TVS Diode**, Model(s): SMF3.3, this component may experience a short circuit condition or voltage breakdown levels outside of the rated range if the component is placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).

**TVS Diode, "8.0SMDJ Series",** Model(s): 8.0SMDJ, followed by 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, or 170, followed by A or CA. Model may be preceded by prefixes or followed by suffixes.

TVS Diode, "SLD263", Model(s): SLD263 followed by -14A, -15A, -16A, -17A, -18A, -20A, -22A, or -24A

**TVS Diode, "SMA6L Series",** Model(s): SMA6L, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 31, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 185, 200, 215, 220, or 250, followed by A. Model may be preceded by prefixes or followed by suffixes.

**TVS Diode, "SMBLCE Series",** Model(s): SMBLCE, followed by 6.5, 7.0\*, 7.5\*, 8.0\*, 8.5\*, 9.0\*, 10\*, 11\*, 12\*, 13\*, 14\*, 15\*, 16\*, 17\*, 18\*, 20\*, 22\*, 24\*, 26\*, 28\*, 30\*, 33\*, 36\*, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, or 70\*, followed by -HR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**TVS Diode, "SMCLCE Series",** Model(s): SMCLCE, followed by 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18\*, 20\*, 22\*, 24\*, 26\*, 28\*, 30\*, 33\*, 36\*, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, or 70\*, followed by -HR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**TVS Diode, "SMDLCE Series",** Model(s): SMDLCE, followed by 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36\*, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, or 70\*, followed by -HR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

TVS Diode, "SMTOAK2", Model(s): SMTOAK2 followed by -066C, -070C, or -076C.

**TVS Diode, "TPSMA6L Series",** Model(s): TPSMA6L, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 31, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, or 85, followed by A. Model may be preceded by prefixes or followed by suffixes.

#### TVS Diode, Asymmetric Series, Model(s): TPSMB2616CA

TVS Diodes, Model(s): HSMF4L, followed by 5.5, followed by A. Part number may be preceded by prefixes or followed by suffixes.

**TVS Diodes**, Model(s): SMF4L, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26\*, 28\*, 30\*, 33\*, 36\*, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, 70\*, 75\*, 78\*, 85\*, 90\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\* or 170\*, may be followed by A, C or CA. Part numbers may be preceded by prefixes or followed by suffixes. Part numbers noted with \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µs lightning waveform event having a minimum of 10 A peak current.

TVS Diodes (asymmetric surface mount), "SMFA", Model(s): SMFA followed by 1505, 1704, 1805, 1905, or 2005, followed by CA

**TVS Diodes, "1.5SMC",** Model(s): 1.5SMC followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, 100, 110, 120, 130, 150, 160, 170, 180, 200, 220, 250, 300, 350, 400, 440, 480, 510, 530, 540, 550, 600, or 650, followed by A or CA.

**TVS Diodes, "30KPA",** Model(s): 30KPA followed by 28, 30, 33, 36, 39, 42, 43, 45, 48, 51, 54, 58, 60, 64, 66, 70, 71, 72, 75, 78, 84, 90, 96, 102, 108, 120, 132, 144, 150, 156, 160, 168, 170, 180, 198, 216, 240, 258, 260, 270, 280, 288, 300, 320, 350, or 360, followed by A, or CA, may be followed by -B

**TVS Diodes, "30KPA-HRA",** Model(s): 30KPA followed by 28, 30, 33, 36, 39, 42, 43, 45, 48, 51, 54, 58, 60, 64, 66, 70, 71, 72, 75, 78, 84, 90, 96, 102, 108, 120, 132, 144, 150, 156, 160, 168, 170, 180, 198, 216, 240, 232, 258, 260, 270, 280, 288, or 300, 345, 400, 600, 700 followed by A or CA, followed by -HRA

**TVS Diodes, "SM8S",** Model(s): SM8S followed by followed by 14, 15, 16, 17, 18, 20, 22, 24, 26, 27, 28, 30, 33, 36, 40, 43, 48, 57, 60, or 64 followed by A.

**TVS Diodes, "TPSMB Series",** Model(s): TPSMB, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47\*, 51\*, 56\*, 58\*, 62\*, 64\*, 68\*, 75\*, 82\*, 91\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 200\*, 210\*, 220\*, 250\*, 300\*, 350\*, 400\*, 440\*, 480\*, 510\*, 520\*, 530\*, 540\*, or 550\*, may be followed by A, C or CA. Model may be preceded by prefixes or followed by suffixes. Models indicated by \* may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000 µS lightning waveform event having a minimum of 10 A peak current.

**TVS Diodes, "TPSMB Series",** Model(s): TPSMB, , followed by 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40\*, 43\*, 45\*, 48\*, 51\*, 54\*, 58\*, 60\*, 64\*, 70\*, 75\*, 78\*, 85\*, 90\*, 100\*, 110\*, 120\*, 130\*, 150\*, 160\*, 170\*, 180\*, 188\*, 200\*, 220\*, or 250\*, followed by A or CA, followed by -VR. Model may be preceded by prefixes or followed by suffixes. Models indicated by \*

may experience a voltage breakdown level outside of its rated voltage breakdown range, including a short circuit condition, if subjected to a 10 x 1000  $\mu$ S lightning waveform event having a minimum of 10 A peak current.

**TVS Diodes, "TPSMC Series",** Model(s): TPSMC, followed by 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, or 85, followed by A or CA, followed by -VR. Model may be preceded by prefixes or followed by suffixes.

**TVS Diodes, "TPSMC",** Model(s): TPSMC followed by 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, 100, 110, 120, 130, 150, 160, 170, 180, 200, 210, 220, 250, 300, 350, 400, 440, 480, 510, 520, 530, or 540, followed by A or CA. <u>Last Updated</u> on 2025-02-01

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