

# QVGQ2.E128662 - ISOLATED LOOP CIRCUIT PROTECTORS - COMPONENT

## Isolated Loop Circuit Protectors - Component

See General Information for Isolated Loop Circuit Protectors - Component

### LITTELFUSE INC

E128662

SUITE 500  
8755 W HIGGINS RD  
CHICAGO, IL 60631 USA

**Gas tubes**, Model(s) CG120Px, CG130Px, CG2145Px, CG2180Px, CG2230Px, CG2250Px, CG2300Px, CG2350Px, CG2400Px, CG2470Px, CG70Px, CG75Px, CG90Px, SG75Px, SL1002A075Px, SL1002A090Px, SL1002A145Px, SL1002A230Px, SL1002A250Px, SL1002A300Px, SL1002A350Px, SL1002A400Px, SL1002A470Px, SL1010A075Px, SL1010A120Px, SL1010A150Px, SL1010A200Px, SL1010A230Px, SL1010A250Px, SL1010A300Px, SL1010A350Px, SL1010A400Px, SL1010A420Px, SL1010A470Px, SL1010A600Px, SL1021B075Px, SL1021B090Px, SL1021B145Px, SL1021B200Px, SL1021B230Px, SL1021B250Px, SL1021B260Px, SL1021B300Px, SL1021B350Px, SL1021B400Px, SL1021B420Px, SL1021B470Px, SL1411A070Px, SL1411A075Px, SL1411A090Px, SL1411A120Px, SL1411A130Px, SL1411A145Px, SL1411A230Px, SL1411A250Px, SL1411A300Px, SL1411A350Px, SL1411A400Px, SL1411A470Px

**Gas tubes, 2-electrode type**, Model(s) CG2yyy\*, CG2yyyL\*, CG2yyyLS\*, CG2yyyMS\*, CG5xxxL\*, CG5xxxLS\*, CG5yyyMS\*, CGyyy\*, CGyyyL\*, CGyyyLS\*, CGyyyMS\*, SE140+, SE200+, SE230+, SE350+, SE470+, SE500+, SG150+, SG230+, SG300+, SG300Q+, SG350+, SG350Q+, SG400+, SG420+, SG420Q+, SG450Q+, SG500Q+, SG600Q+, SG75+, SG90+, SL0902AyyySM\*, SL1011ByyyA\*, SL1011ByyyC\*, SL1021AyyyC\*, SL1024AyyyC\*, SL1411AyyyA\*, SL1411AyyyC\*, SL1411AyyySM\*

**Gas tubes, 3-electrode type**, Model(s) PMT3(310)yyy\*, PMT8yyy\*, PMT8yyy01\*, PMT8yyy14\*, SL1003A090R+, SL1003A230R+, SL1003A250R+, SL1003A260R+, SL1003A300R+, SL1003A350R+, SL1003A400R+, SL1003A450R+, SL1003A500R+, SL1003AyyyC\*, SL1003AyyyR\*, SL1003AyyySM\*, SL1010A075+, SL1010A075SMF, SL1010A090+, SL1010A090SMF, SL1010A150+, SL1010A150SMF, SL1010A170SMF, SL1010A230+, SL1010A230SMF, SL1010A300+, SL1010A300SMF, SL1010A350+, SL1010A350SMF, SL1010A420+, SL1010A420SMF, SL1010A470+, SL1010A470SMF, SL1021AyyyR\*, SL1021AyyyX\*, SL1021ByyyC\*, SL1021ByyyR\*, SL1021ByyyX\*, SL1024AyyyR\*, SL1024AyyyX\*, SL1024ByyyC\*, SL1024ByyyR\*, SL1024ByyyX\*, SL1122A180+, SL1122A230+, SL1122A250+, SL1122A260+, SL1122A300+, SL1122A350+, SL1122A420+, SL1122A90+

**Gas tubes, axial type**, Model(s) CG5145Px, CG5230Px, CG5250Px, CG5300Px, CG5350Px, CG5400Px, CG5470Px, CG5600Px, CG575Px, CG590Px, CG6145Lx, CG6230Lx, CG6250Lx, CG6300Lx, CG6350Lx, CG6400Lx, CG6470Lx, CG6600Lx, CG675Lx, CG690Lx, CG7120Lx, CG7150Lx, CG7200Lx, CG7230Lx, CG7250Lx, CG7350Lx, CG7400Lx, CG790Lx

**Gas tubes, surface mount type**, Model(s) 4532-090LF, CG6145SMx, CG6230SMx, CG6250SMx, CG6300SMx, CG6350SMx, CG6400SMx, CG6470SMx, CG6600SMx, CG675SMx, CG690SMx, CG7120MSx, CG7150MSx, CG7200MSx, CG7230MSx, CG7250MSx, CG7350MSx, CG7400MSx, CG790MSx, SG120Px, SG150Px, SG200Px, SG230Px, SG300Px, SG350Px, SG400Px, SG420Px, SG470Px, SG500QPx, SG600QPx, SG90Px, SH145\*\*\*\*\* (\$), SH230\*\*\*\*\* (\$), SH250\*\*\*\*\* (\$), SH300\*\*\*\*\* (\$), SH350\*\*\*\*\* (\$), SH400\*\*\*\*\* (\$), SH470\*\*\*\*\* (\$), SH600\*\*\*\*\* (\$), SH75\*\*\*\*\* (\$), SH90\*\*\*\*\* (\$), SL0902A075Px, SL0902A090Px, SL0902A145Px, SL0902A230Px, SL0902A250Px, SL0902A300Px, SL0902A350Px, SL0902A400Px, SL0902A470Px, SL0902A600Px

**Gas tubes, surface mount types, "SL1002A Series"**, Model(s) SL1002A, followed by 075, 090, 230, 250, 260, 300, 350, 450, 470 or 600, followed by SM or C.

**Gas tubes, surface mount types, "SL1002A Series"**, Model(s) SL1002A600SP

**Gas tubes, with leads, 2-electrode type**, Model(s) CG4230LE+, CG4300LE+, CG4300LEQ+, CG4350LE+, CG4350LEQ+, CG4400LE+, CG4450LE+, CG4500LE+, CG490LE+, SL1011A075A+, SL1011A075C+, SL1011A075E+, SL1011A075N+, SL1011A090A+, SL1011A090C+, SL1011A090E+, SL1011A090N+, SL1011A145A+, SL1011A145C+, SL1011A145E+, SL1011A145N+, SL1011A150A+, SL1011A150C+, SL1011A150E+, SL1011A150N+, SL1011A230A+, SL1011A230C+, SL1011A230E+, SL1011A230N+, SL1011A250A+, SL1011A250C+, SL1011A250E+, SL1011A250N+, SL1011A260A+, SL1011A260C+, SL1011A260E+, SL1011A260N+, SL1011A350A+, SL1011A350C+, SL1011A350E+, SL1011A350N+,

SL1011A425A+, SL1011A425C+, SL1011A425E+, SL1011A425N+, SL1011A470A+, SL1011A470C+, SL1011A470E+, SL1011A470N+, SL1011A500A+, SL1011A500C+, SL1011A500E+, SL1011A500N+, SL1011A600A+, SL1011A600C+, SL1011A600E+, SL1011A600N+

**Pill type thyristors**, Model(s) P-T070 (30v-350v), P-T080 (30v-350v), P-T100 (30v-350v), P-T100-xxx-003 (6v-315v)

**Sideac, axial type**, Model(s) MKP1V120, MKP1V130, MKP1V160, MKP1V240, MKP3V120, MKP3V240

**Thyristors, axial leads and disc types**, Model(s) CRXXX0-SA, CRXXX0-SB, CRXXX0-SC, CRXXX2-AA, CRXXX2-AB, CRXXX2-AC, CRXXX3-AA, CRXXX3-AB, CRXXX3-AC, T10A Series (50 A, 68v-270v), T10B Series (100 A, 68v-350v), T10C, T10L Series (100 A, 68v-350v), T10P Series (100 A, 68v-350v)

**Thyristors, surface mount**, Model(s) SMTBJ Series (50A, 75A or 100A, 50v-200v)

**Thyristors, surface mount, bidirectional type**, Model(s) SMT050, SMT100

**Transient voltage surge suppressor, axial type, unidirectional and bidirectional devices, "1.5KE Series"**, Model(s) 1.5KE6.8 thru 1.5KE250, 1500W (2)

**Transient voltage surge suppressor, axial type, unidirectional and bidirectional devices, "P6KE Series"**, Model(s) P6KE6.8 thru P6KE200, 600W

**Transient voltage surge suppressor, axial type, unidirectional and bidirectional devices, "SA Series"**, Model(s) SA5.0 thru SA170, 500W

**Transient voltage surge suppressor, surface mount type, unidirectional and bidirectional devices, "1.5SMC Series"**, 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, or 91, followed by A (1)@

**TVS diode protection arrays**, Model(s) SP03-3.3#, SP03-6#, SP03-8#

**TVS diodes**, Model(s) 1SMA, followed by 10, 12, 13, 15, 16, 18, 20, 24, 26, 28, 30, 33(3), 36(3), 40(3), 48(3), 58(3), 60(3), 70(3), or 78(3), followed by CAT3G@

**TVS diodes**, Model(s) 1SMA, followed by 5.0, 6.0, 6.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 4, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33(3), 36(3), 40(3), 43(3), 45(3), 48(3), 54(3), 58(3), or 70(3), followed by AT3G@

**TVS diodes**, Model(s) 288KP170A

**TVS diodes**, Model(s) SMF, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 9.0, 10, 11, 12, 13, 14, 15(3), 18(3), 20(3), 22(3), 24(3), 26(3), 28(3), 30(3), 33(3), 36(3), 48(3), 51(3), or 58(3), followed by AT1G@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK1, TPAK1, or LTKAK1, followed by -015C, -030C -058C, -066C, -076C, -086C, -150C, -170C, -208C, -220C, -240C -380C or -430C.@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK10, TPAK10, or LTKAK10, followed by -015C, -030C, -058C, -066C, -076C, -086C, -150C, -170C, -190C (NTI 200), -208C, -220C, -240C, -380C (NTI 422), -430C (NTI 470) or -530C.@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK15, TPAK15, or LTKAK15, followed by -058C, -066C, -076C, -086C.@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK20 followed by -016C, -058C, -063C, -066C, -076C, 150C, -170C, -190C, -208C, -220C, -240C, -380C, or -430C.@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK3, TPAK3, LTKAK3 or SMTAK3, followed by -015C, -030C, -058C, -066C, -076C, -086C, -150C, -170C, -190C, -208C, -220C, -240C -380C or -430C.@

**TVS diodes, unidirectional and bidirectional types**, Model(s) AK6, TPAK6, or LTKAK6, followed by -015C, -030C, -058C, -066A, -066C, -066CL, -076C, -076CL, -086C, -150C, -170C, -190C, -208C, -220C, -240C, -380C or -430C.@

**Zener transient voltage suppressors, surface mount type, unidirectional and bidirectional devices, "1SMB Series"**, Model(s) 1SMB followed by 5.0, 6.0A, 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, followed by A (1)@

**Zener transient voltage suppressors, surface mount type, unidirectional and bidirectional devices, "1SMC Series"**, Model(s) 1SMC, 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, or 78, followed by A (1)@

**Zener transient voltage suppressors, surface mount type, unidirectional and bidirectional devices, "P6SMB Series"**, Model(s) P6SMB 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, followed by A (1)@

# - May be followed by up to 3 alphanumeric characters indicating packaging options.

(\$ - where \*\*\*\*\* is blank or Up to six alphanumeric characters denoting packing quantity, packing method, Lead wire forming and customer code.

(1) - Surface mount devices may be suffixed by 'T3' or 'T3G' to indicate tape/reel packaging and/or plating differences.

(2) - May employ suffix A, C, or CA.


(3) - Indicates certain components per Series may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are 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)

\* - yyy denotes voltages 75, 90, 110, 145, 150, 200, 230, 250, 260, 270, 300, 350, 380, 400, 420, 450, 470, 500 or 600v. May be followed by suffixes to denote packaging, color code and customer requirements.

+ - May be followed by suffixes to denote packaging, color code and customer requirements.

@ - All part numbers may be preceded by prefixes or followed by suffixes for customer requirements.

x - where x is blank or Up to six alphanumeric characters denoting packing quantity, packing method, Lead wire forming and customer code.

Marking: Company name, model designation, and the Recognized Component Mark,  .

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