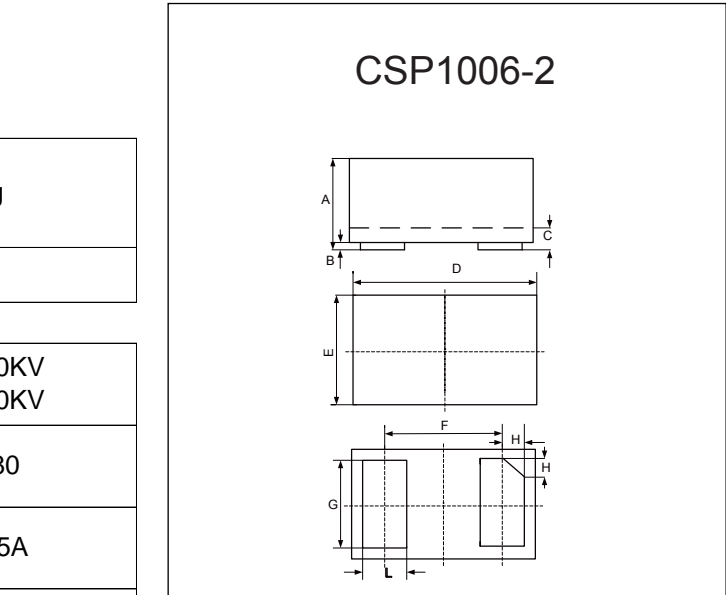
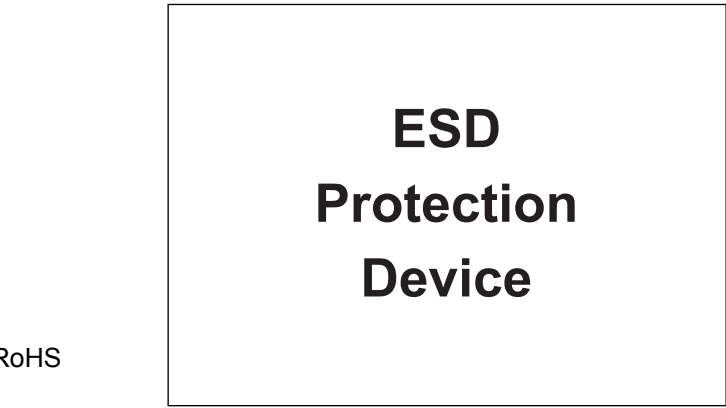


Features

- Protects One Data or Power Line
- Chip Scale Package
- Ultra Low Leakage
- Low Clamping Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C



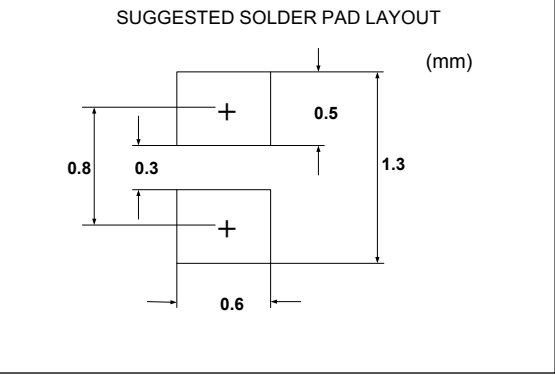
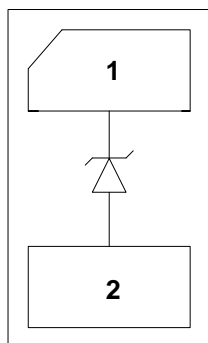
MCC Part Number	Device Marking
CSPH12VL	SAX

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
IEC61000-4-4 (EFT) @5/50ns		80
Peak Pulse Current(8/20µs)	I _{PP}	45A
Peak Pulse Power (8/20µs)	P _{PK}	1300W

Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.026		0.650		TYP.
G	0.018	0.022	0.45	0.55	
H	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

Circuit and Pin Schematic



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13	14	16.5	V
Reverse Leakage Current	I_R	$V_{RWM}=12V$			1	μA
Clamping Voltage	V_C	$I_{PP}=20A, t_p=8/20\mu s$			24	V
Clamping Voltage	V_C	$I_{PP}=45A, t_p=8/20\mu s$			32	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		100	150	pF

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

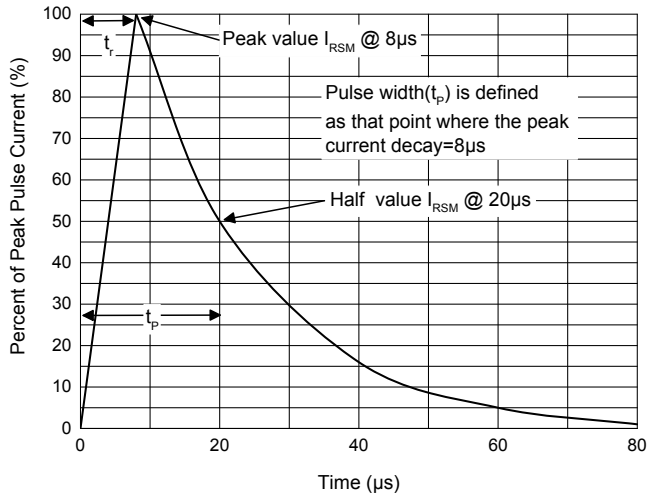


Fig. 2 - Non-Repetitive Peak Pulse Power

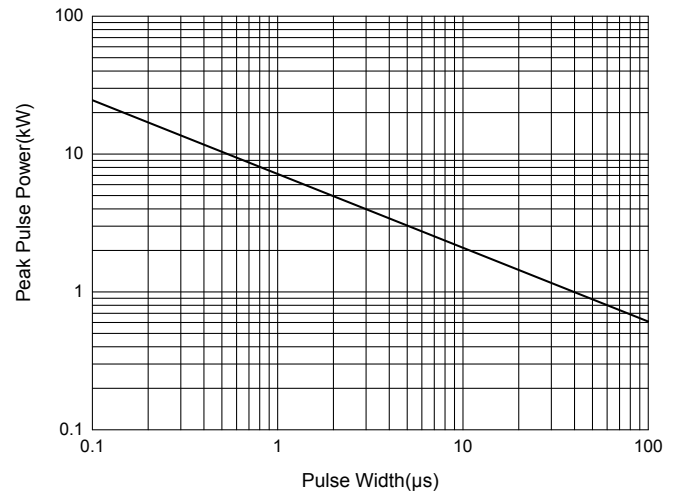


Fig. 3 - Capacitance Characteristics

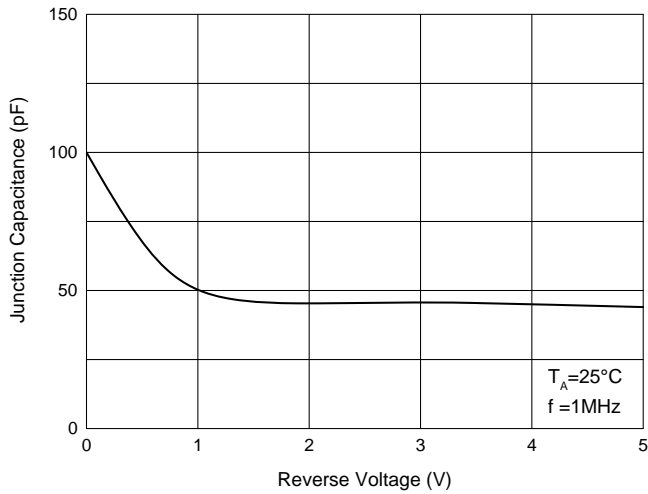


Fig. 4 - Clamping Voltage Characteristics

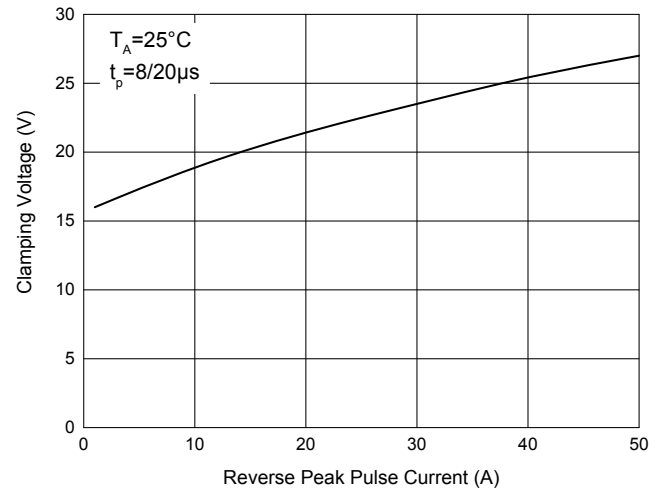
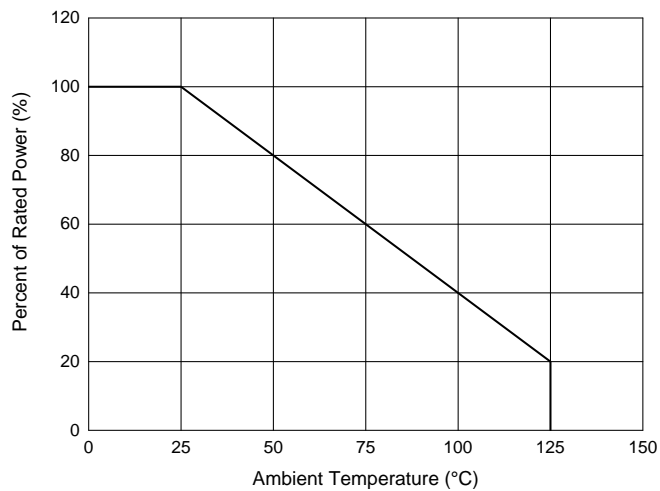


Fig. 5 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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