Features

- Protects One Data or Power Line
- Ultra Low Leakage
- Ultra 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
SD05CH	05
SD08CH	08
SD15CH	15
SD36CH	36

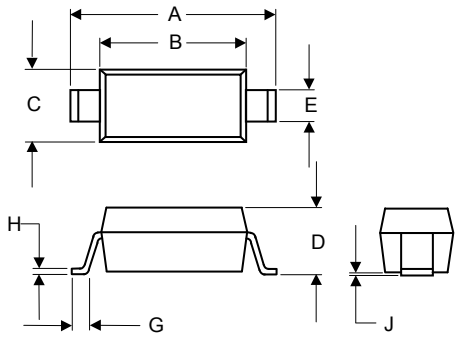
IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Power (8/20μs)	P_{PK}	500W

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

Internal Structure

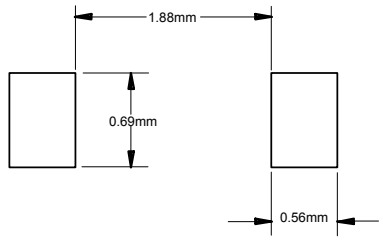
ESD Protection Device

SOD-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

SD05CH

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T =1mA	6			V
Reverse Leakage Current	I_R	V_{RWM}=5V			0.2	μA
Peak Pulse Current	I_{PP}	t_P=8/20μs			34	A
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			9.5	V
Clamping Voltage	V_C	I_{PP}=34A, t_P=8/20μs			15	V
Junction Capacitance	C_J	V_R=0V, f=1MHz			200	pF

SD08CH

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				8	V
Reverse Breakdown Voltage	V_{BR}	I_T =1mA	8.5			V
Reverse Leakage Current	I_R	V_{RWM}=8V			0.2	μA
Peak Pulse Current	I_{PP}	t_P=8/20μs			30	A
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs			11	V
Clamping Voltage	V_C	I_{PP}=30A, t_P=8/20μs			18	V
Junction Capacitance	C_J	V_R=0V, f=1MHz			120	pF

SD15CH

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				15	V
Reverse Breakdown Voltage	V_{BR}	I_T =1mA	16.7			V
Reverse Leakage Current	I_R	V_{RWM}=15V			0.2	μA
Peak Pulse Current	I_{PP}	t_P=8/20μs			16	A
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs			20	V
Clamping Voltage	V_C	I_{PP}=16A, t_P=8/20μs			31	V
Junction Capacitance	C_J	V_R=0V, f=1MHz			80	pF

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

SD36CH

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				36	V
Reverse Breakdown Voltage	V_{BR}	I_T =1mA	38			V
Reverse Leakage Current	I_R	V_{RWM}=36V			0.2	μA
Peak Pulse Current	I_{PP}	t_P=8/20μs			6	A
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs			50	V
Junction Capacitance	C_J	V_R=0V, f=1MHz			30	pF

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

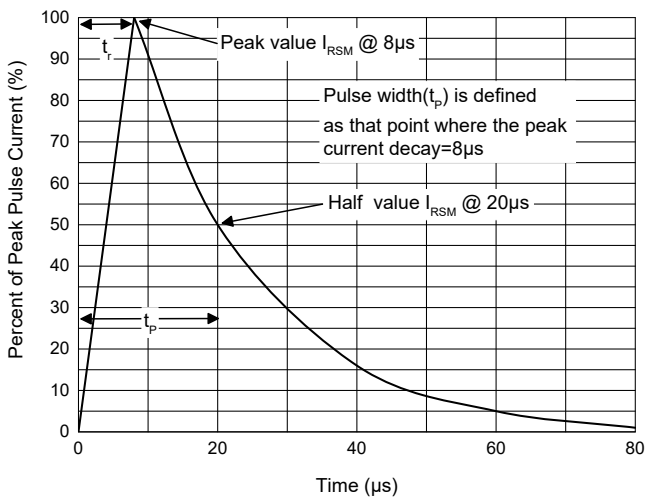


Fig. 2 - Non-Repetitive Peak Pulse Power

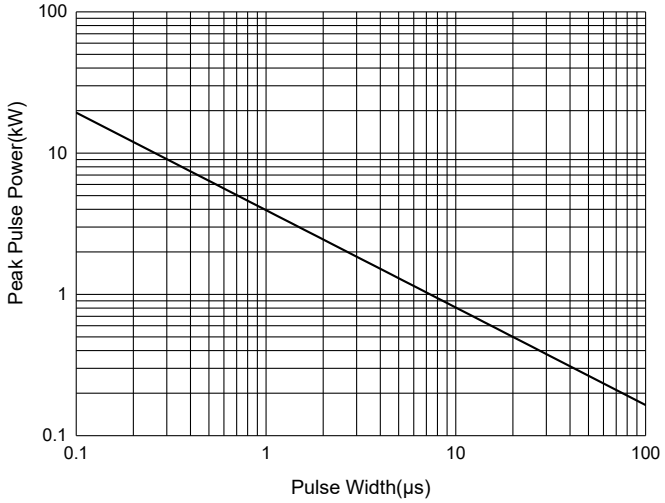
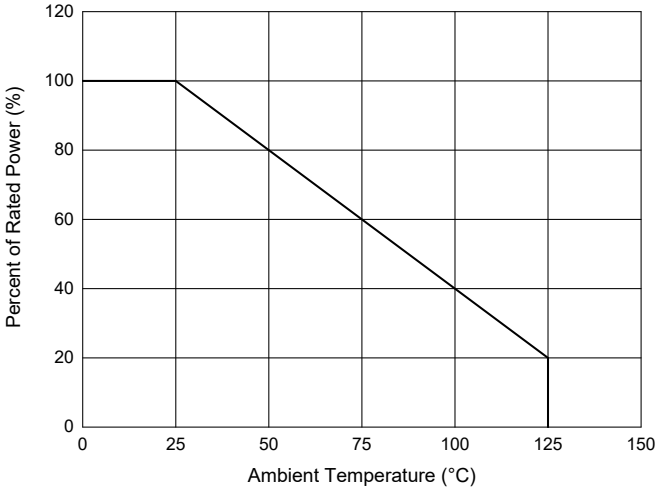


Fig. 3 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel