Features

- For Sensitive ESD Protection
- Excellent Clamping Capability
- Low Leakage
- Fast Response, Response Time Less than 1ns.
- 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)

ESD Protection Device

Maximum Ratings

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

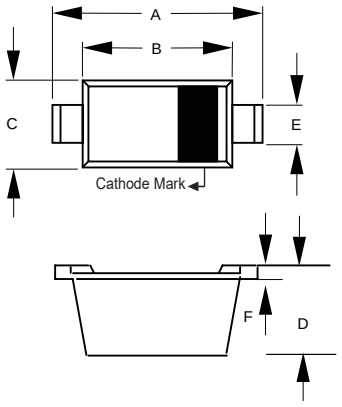
MCC Part Number	Device Marking
ESD7V0D9	9M

IEC61000-4-2(ESD)	Air Contact	±15KV ±8KV
JESD22-A114-B(ESD)	Human Body	16KV
Peak Pulse Power (8/20us)	P_{PK}	100W

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

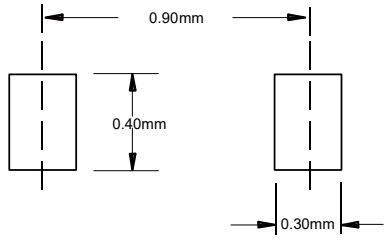
Internal Structure

SOD-923



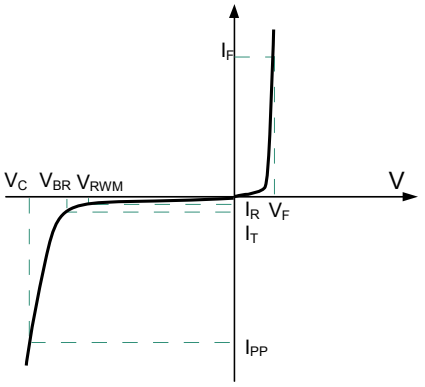
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.037	0.041	0.95	1.05	
B	0.030	0.033	0.75	0.85	
C	0.022	0.026	0.55	0.65	
D	0.014	0.017	0.36	0.43	
E	0.006	0.010	0.15	0.25	
F	0.003	0.007	0.07	0.17	

Suggested Solder Pad Layout



ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				7	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	8			V
Reverse Leakage Current	I_R	V_{RWM} =7V			1	μA
Forward Voltage	V_F	I_F = 10mA		0.8		V
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs			10	V
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			14.8	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		25	30	pF
Junction Capacitance	C_J	V_R = 2.5V, f = 1MHz		18	25	pF

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

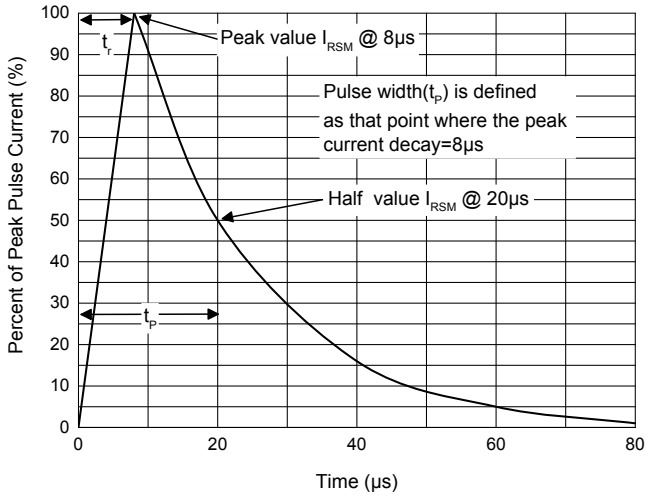


Fig. 2 - Pulse Derating Curve