

Features

- For Sensitive ESD Protection
- Excellent Clamping Capability
- Low Leakage Current
- Fast Response, Response Time Less than 1ns
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

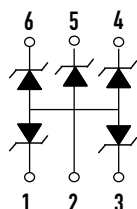
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 833°C/W Junction to Ambient

MCC Part Number	Device Marking
ESD5V0K5	22

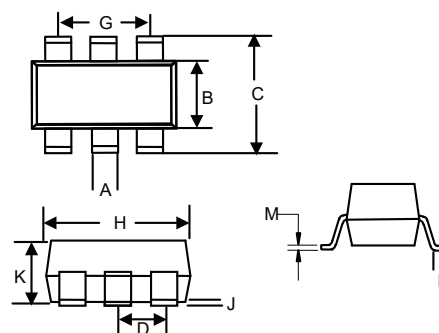
IEC61000-4-2(ESD)	Air Contact	±15KV ±15KV
JESD22-A114-B(ESD)	Human Body	±16KV
Peak Pulse Current(8/20μs)	I _{PP}	8A
Peak Pulse Power (8/20us)	P _{PK}	100W
Power Dissipation	P _D	150mW

Internal Structure



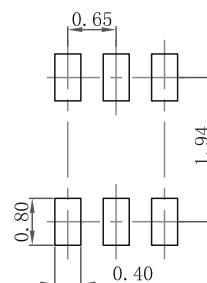
ESD Protection Device

SOT-363



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65		TYP.
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6		7.2	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			5	μA
Forward Voltage	V_F	$I_F = 10\text{mA}$			0.9	V
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_P=8/20\mu\text{s}$			9.5	V
Clamping Voltage	V_C	$I_{PP}=5\text{A}$, $t_P=8/20\mu\text{s}$			12.5	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		140		pF

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

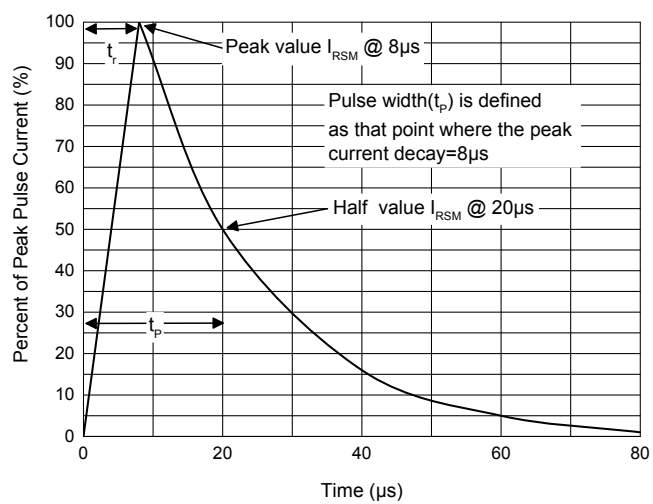
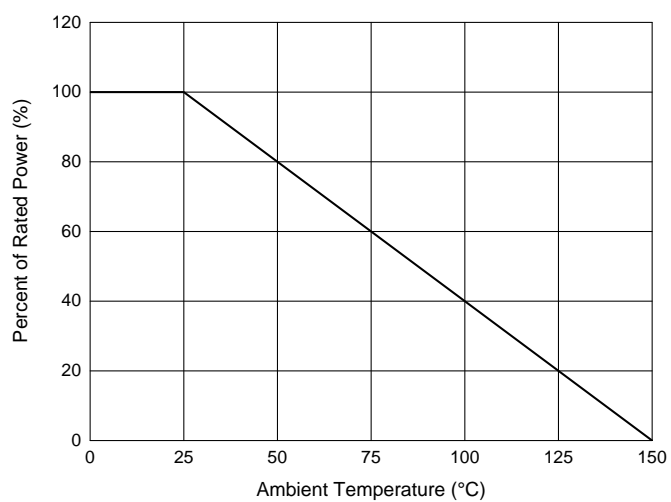


Fig. 2 - Pulse Derating Curve



Ordering Information

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

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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