

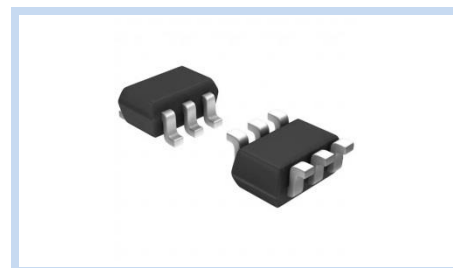
# ESD Suppressor 5V 3-Unidirectional SOT-363

ME53U11S363

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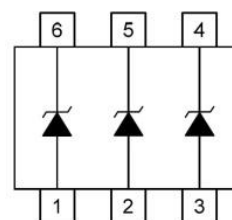
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- IEC 61000-4-5 Lightning: 13A (8/20 $\mu\text{s}$ )
- ESD Protection for three Unidirectional Channels
- Low Clamping Voltage



## APPLICATION

- Notebook and Desktop PC
- Cell Phone Handsets and Accessories
- Servers
- Portable Devices



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 30$	KV
ESD Voltage (Air discharge)		$\pm 30$	
Typical Thermal Resistance	$R_{\theta JA}$	540	$^{\circ}\text{C}/\text{W}$
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS

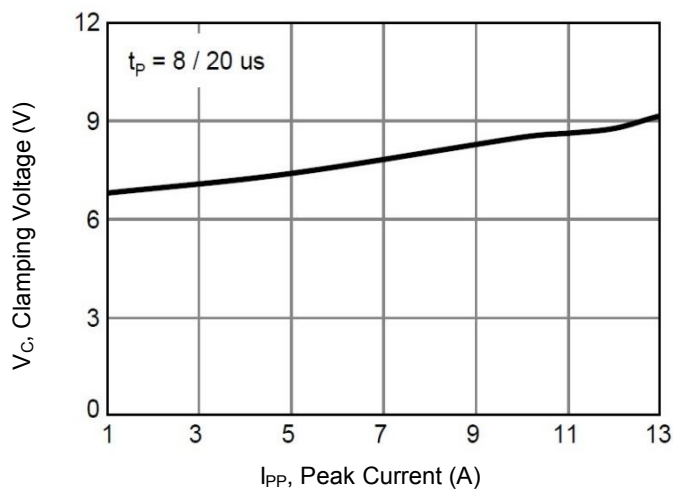
Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	$V_{RWM}$	--	--	5	V
Reverse Breakdown Voltage	$V_{BR}=1\text{mA}$	$V_{BR}$	6	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	1	$\mu\text{A}$
Dynamic Resistance	$t_p=100\text{ns}$	$R_{DYN}$	--	0.17	--	$\Omega$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s},$	$V_C$	--	--	8	V
	$I_{PP}=13\text{A}, t_p=8/20\mu\text{s},$		--	--	11	
Clamping Voltage TLP	$I_{PP}=8\text{A}, t_p=100\text{ns}$	$V_C$	--	8.28	--	V
	$I_{PP}=16\text{A}, t_p=100\text{ns}$		--	9.6	--	
Off State Junction Capacitance	$V_{dc}=0, \text{Bias}, f=1\text{MHz}$	$C_J$	--	--	120	pF

Note:

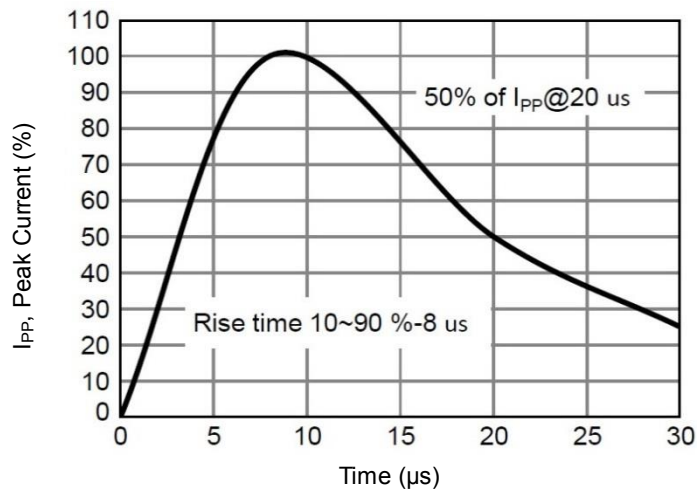
1. Mounted on a FR4 PCB, single-sided Copper, mini pad. A transient suppressor is selected according to the working peak reverse voltage  $V_{RWM}$ , which should be equal to or greater than the DC or continuous peak operation voltage level
2. Testing using Transmission Line Pulse (TLP) conditions:  $Z_0=50\Omega, t_p=100\text{ns}$
3.  $T_A=25^{\circ}\text{C}$  unless otherwise specified

### CHARACTERISTIC CURVES

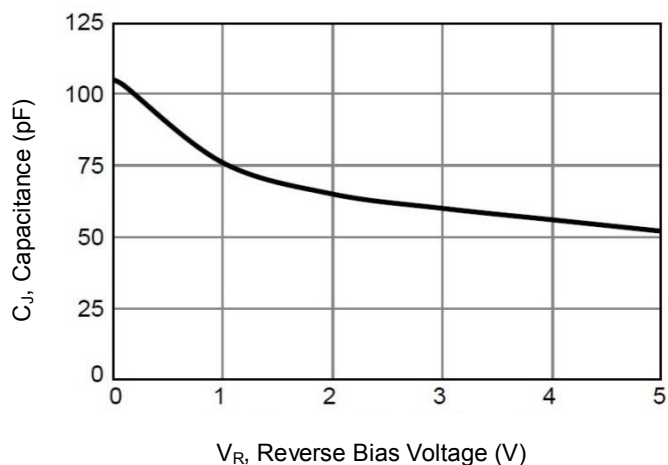
Typical Peak Clamping Voltage



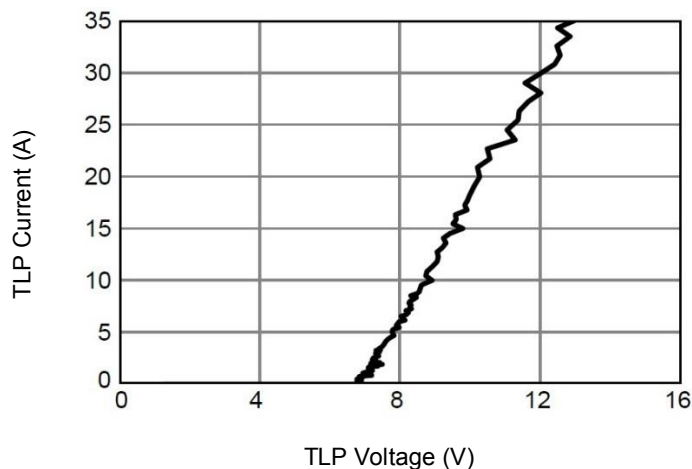
Pulse Waveform



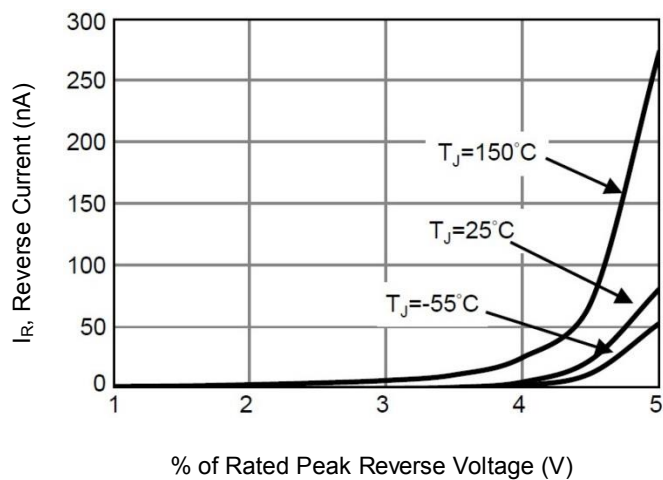
Typical Junction Capacitance



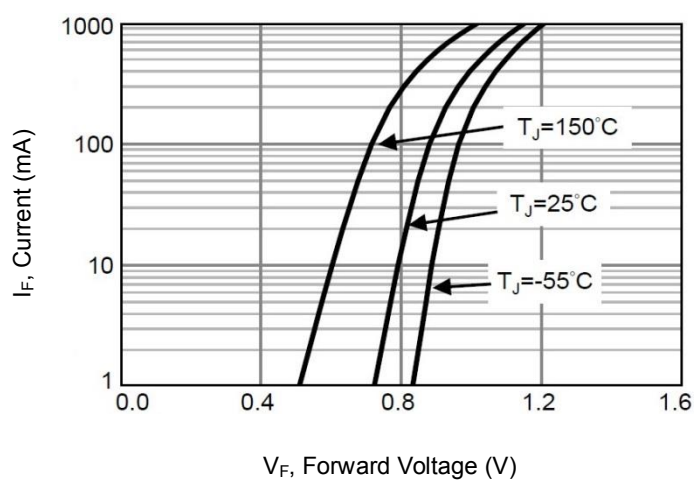
Transmission Line Pulsing



Typical Reverse Characteristics



Typical Forward Characteristics



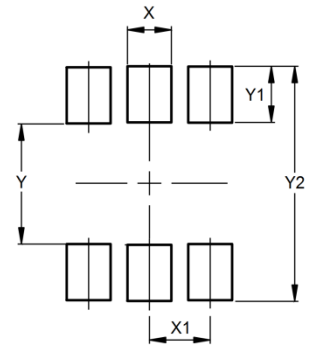
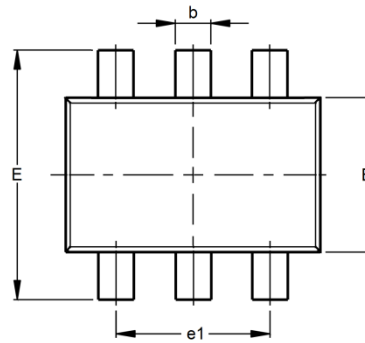
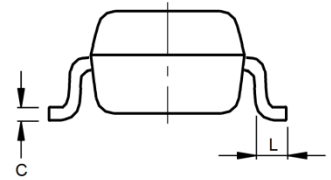
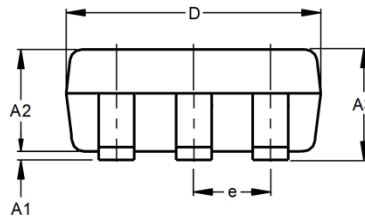
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.00	0.10
A2	0.80	1.00
A3	0.00	1.10
b	0.15	0.30
C	0.08	0.25
D	1.90	2.20
e	0.55	0.75
e1	1.20	1.40
E	2.00	2.20
E1	1.15	1.35
L	0.15	0.45
Y	1.25	1.25
Y1	0.60	0.60
Y2	2.30	2.30
X	0.42	0.42
X1	0.65	0.65



\*Specifications subject to change without notice.