

### APPLICATIONS

- ◆ USB 2.0 power and data line
- ◆ Digital TV and Digital video interface
- ◆ Industrial Controls
- ◆ Set-Top Box
- ◆ SIM Ports, 10/1000 Ethernet
- ◆ Servers, Notebook, and Desktop PC

### IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD)  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50  $\eta$  s)
- ◆ IEC61000-4-5 (Lightning) 24A (8/20 $\mu$ s)

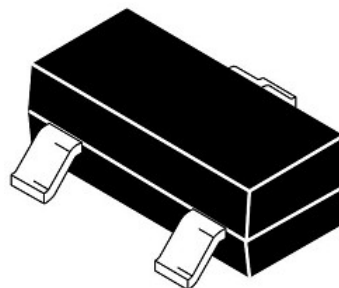
### FEATURES

- ◆ 350 Watts Peak Pulse Power per Line ( $t_p=8/20\mu\text{s}$ )
- ◆ Protects one bidirectional line or two unidirectional lines
- ◆ Low clamping voltage
- ◆ RoHS Compliant

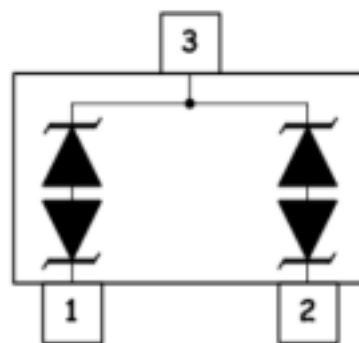
### MECHANICAL CHARACTERISTICS

- ◆ JEDEC SOT-23 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 8.0 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

#### SOT-23



#### PIN CONFIGURATION



## DEVICE CHARACTERISTICS

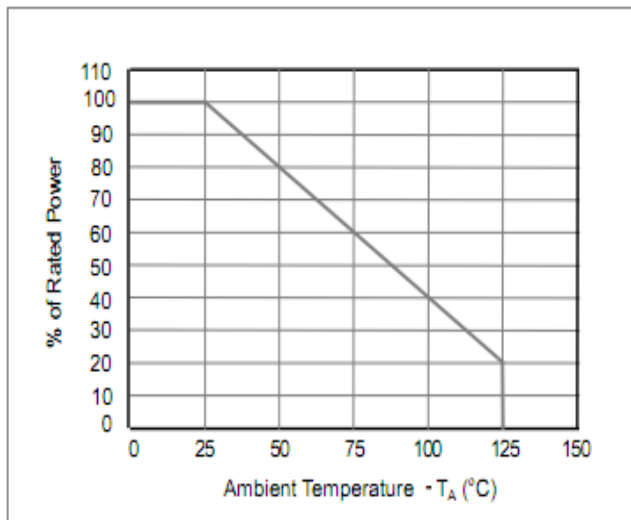
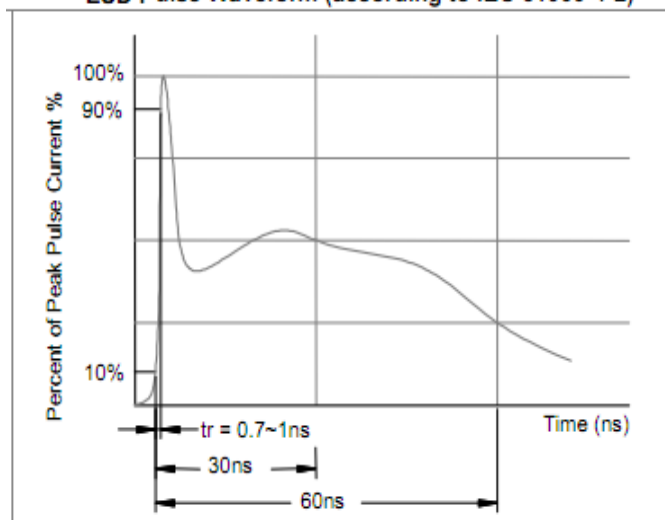
### MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	350	Watts
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55 ~ 125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 125	°C

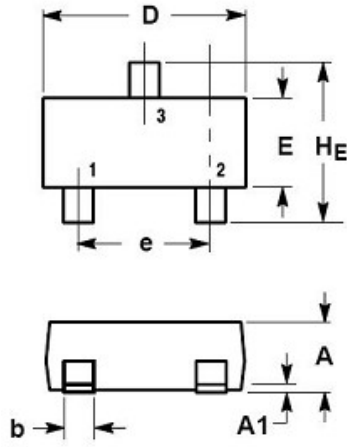
### ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub>	V <sub>B</sub>	I <sub>T</sub>	V <sub>C</sub>	V <sub>C</sub>		I <sub>R</sub>	C <sub>T</sub>
		(V) (max.)	(V) (min.)		@1A (max.)	(max.)	(@A)		
SM03C	C03	3.3	4.0	1	7	10.5	20	40	220
SM05C	C05	5	6.0	1	8	12	18	1	80
SM08C	C08	8	8.5	1	13.4	24	12	1	75
SM12C	C12	12	13.3	1	18	30	10	0.5	35
SM15C	C15	15	16.7	1	24	38	10	1	60
SM24C	C24	24	32	1	40	45	5	0.2	25
SM36C	C36	36	38	1	50	60	4	0.2	20

ESD Pulse Waveform (according to IEC 61000-4-2)



## SOT-23 PACKAGE OUTLINE & DIMENSIONS



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.015	0.018	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104

### \* SOLDERING FOOTPRINT

