

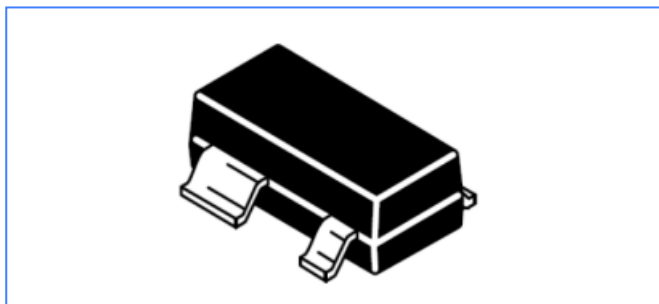
ESDSR70

Features

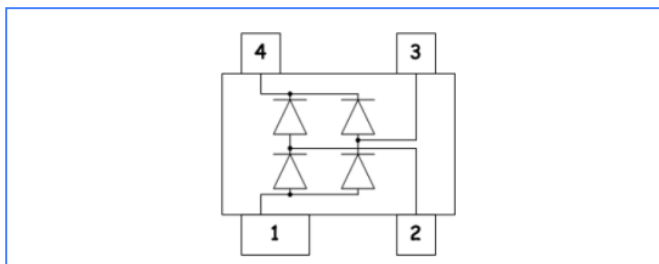
- Low leakage
- Operating voltage: 70V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-5 (Lightning)25A (8/20 μs)

Applications

- Peripherals
- Industrial Equipment
- Notebook Computers
- Portable Instrumentation
- Microprocessor Based Equipment
- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDAs) and Pagers



Pin Configuration



Mechanical Characteristics

- Package: SOT-143
- UL Flammability Classification Rating 94V-0
- Lead Finish: Lead Free

Absolute Maximum Ratings(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{PP}	250	Watts
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	KV
ESD per IEC 61000-4-2 (Contact)		± 30	KV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RRM}				70	V
Breakdown Voltage	V _{BR}	I _T = 0.05mA	85			V
Reverse Leakage Current	I _R	V _{RWM} = 70V			5	μA
Clamping Voltage	V _C	I _{PP} = 1A (8 x 20 s pulse)			1.5	V
Clamping Voltage	V _C	I _{PP} = 25A (8 x 20 s pulse)			10	V
Junction Capacitance	C _J	V = 0V, f = 1MHz		5		pF

Characteristics Curves (TA=25°C unless otherwise Specified)

Figure1- 8 X 20us Pulse Waveform

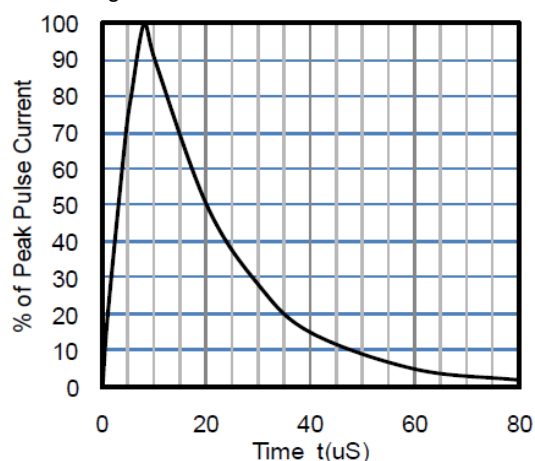


Figure 2-Peak Pulse Power vs. Pulse Time

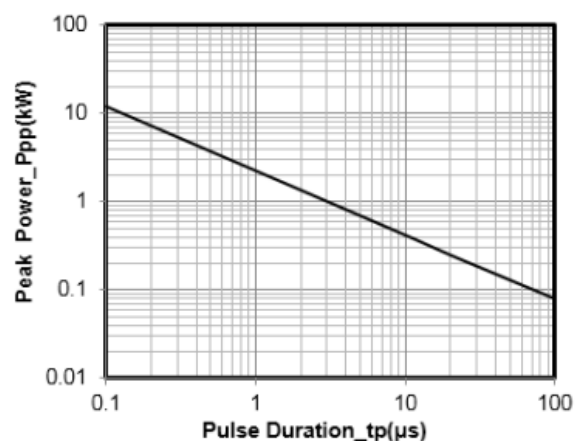


Figure3- Clamping Voltage vs. Peak Pulse Current

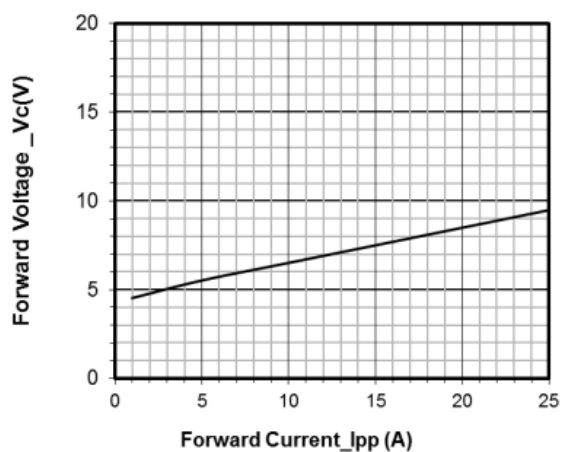
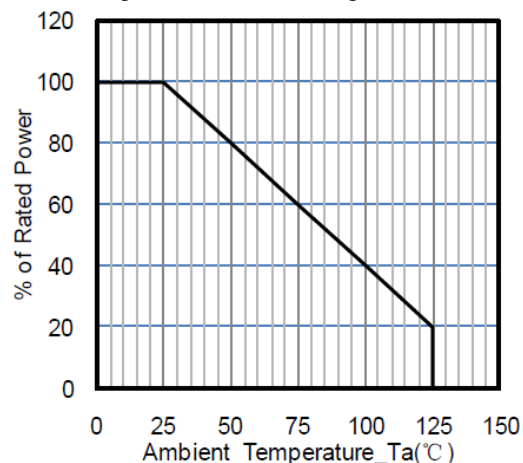
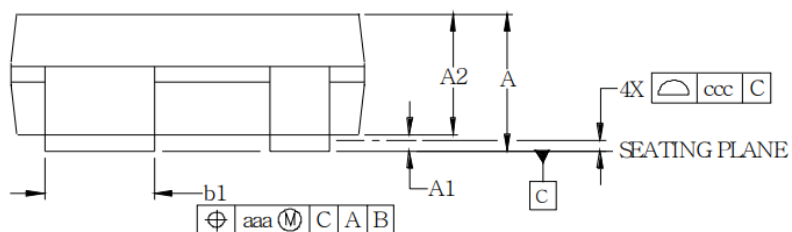
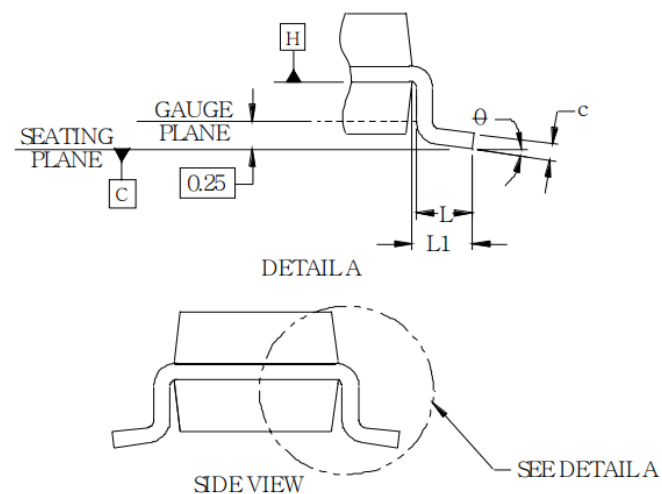
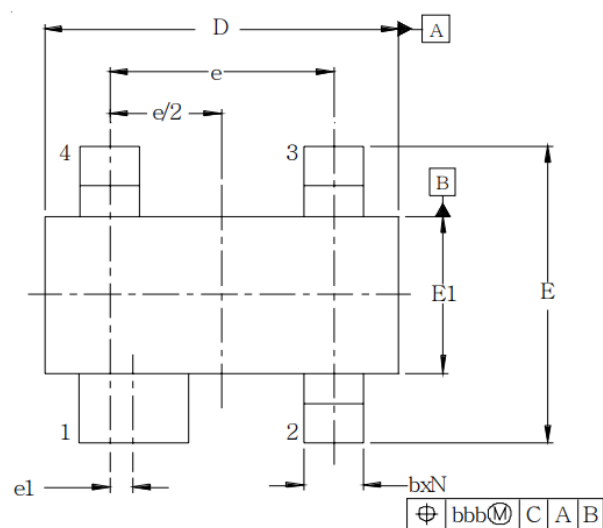


Figure4- Power Derating Curve

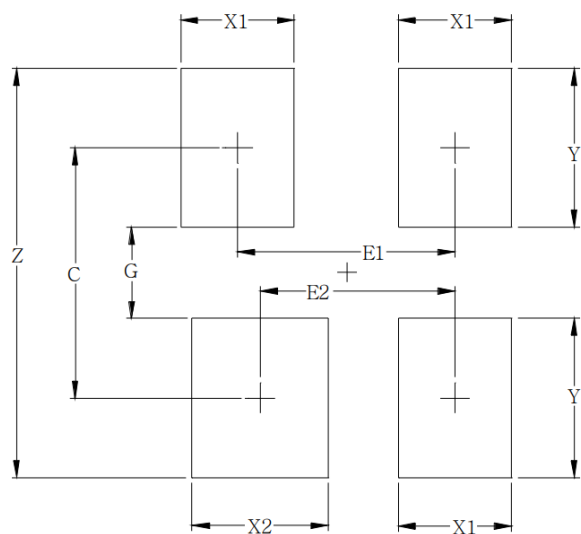


PACKAGE OUTLINE DIMENSIONS :SOT-143



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.031	-	0.048	0.80	-	1.22
A1	0.000	-	0.006	0.013	-	0.15
A2	0.029	0.035	0.042	0.75	0.90	1.07
b	0.011	-	0.020	0.30	-	0.51
b1	0.029	-	0.037	0.76	-	0.94
c	0.003	-	0.008	0.08	-	0.20
D	0.110	0.114	0.120	2.80	2.90	3.04
E	0.082	0.093	0.104	2.10	2.37	2.64
E1	0.047	0.051	0.055	1.20	1.30	1.40
e	0.075			1.92 BSC		
e1	0.008			0.20BSC		
L	0.015	0.020	0.024	0.40	0.50	0.60
L1	0.021			0.54		
N	4			4		
θ	0°	-	8°	0°	-	8°
aaa	0.006			0.15		
bbb	0.008			0.20		
ccc	0.004			0.10		

Recommended Pad Layout



SYM	INCHES	MILLIMETERS
C	0.087	2.20
E1	0.076	1.92
E2	0.068	1.72
G	0.031	0.80
X1	0.039	1.00
X2	0.047	1.20
Y	0.055	1.40
Z	0.141	3.60

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.