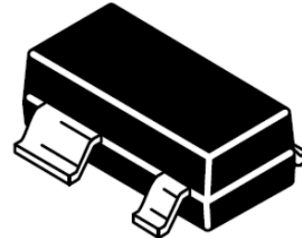


Features

- Low leakage current
- 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)
- RoHS Compliant

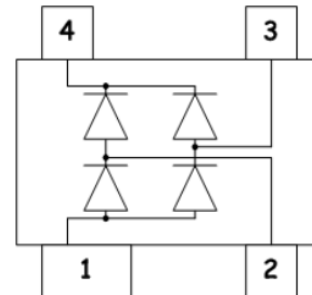
Dimensions SOT-143



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
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch
- Device Marking: ASR70

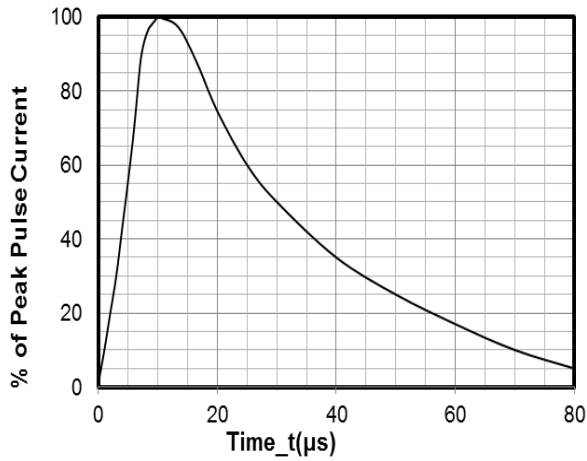
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

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

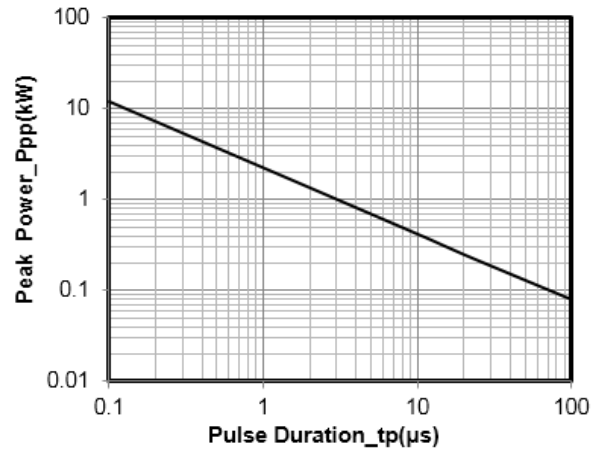
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				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 μs pulse)			1.5	V
Clamping Voltage	V_C	$I_{PP} = 25A$ (8 x 20 μs pulse)			10	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		5		pF

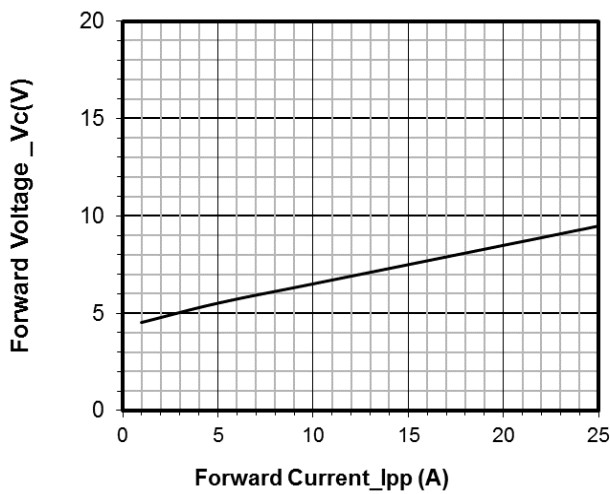
Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



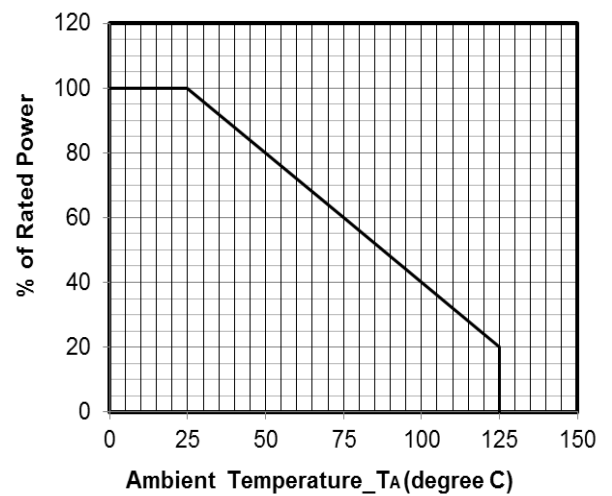
8 X 20µs Pulse Waveform



Peak Pulse Power vs. Pulse Time

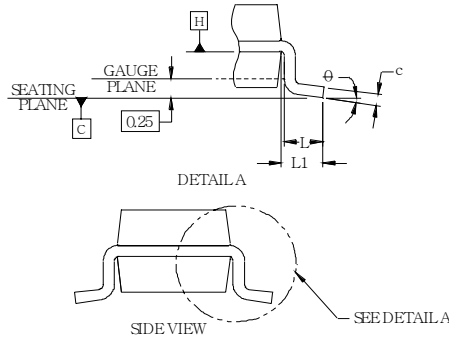
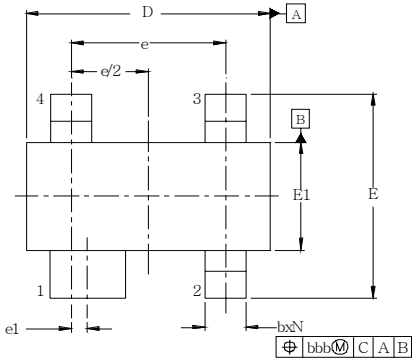


Clamping Voltage vs. Peak Pulse Current

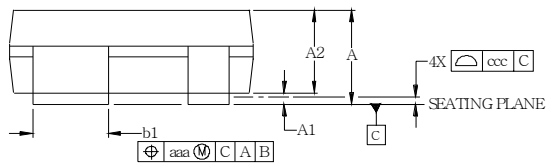


Power Derating Curve

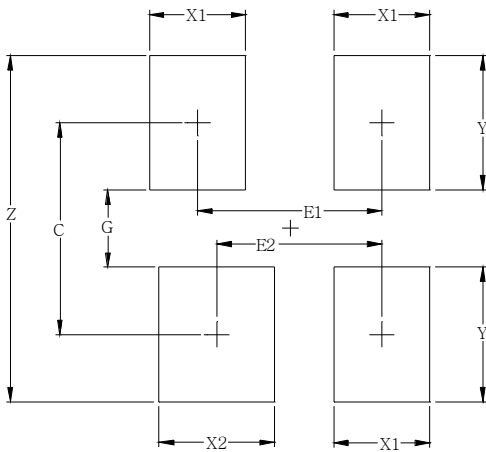
SOT-143 Package Outline Drawing



DIM	INCHES		MILLIMETERS	
	MIN	NOM	MIN	NOM
A	.061	—	.048	0.80
A1	.00	—	.003	—
A2	.029	.035	.012	0.90
b	.011	—	.020	0.30
b1	.029	—	.037	0.76
c	.008	—	.008	0.08
D	.110	.114	2.80	2.90
E	.062	.063	1.04	2.37
E1	.047	.051	.055	1.30
e	.075	—	1.92	RSC
e1	.018	—	0.20	RSC
L	.015	.020	.024	0.40
L1	(.02)	—	(0.5)	—
N	4	—	4	—
φ	0°	—	8°	0°
aaa	.016	—	0.15	—
bbb	.008	—	0.20	—
ccc	.004	—	0.10	—



Suggested Land Pattern



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