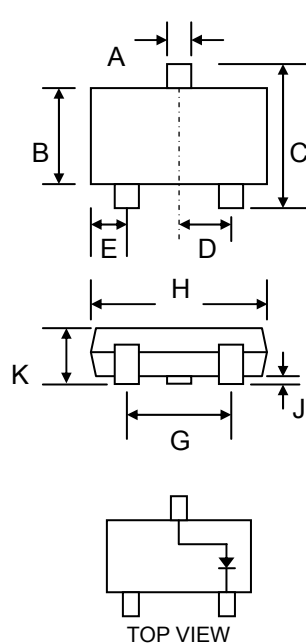


### Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0

### Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: E3
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



SOT-23		
Dim	Min	Max
A	0.30	0.50
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	85	V
Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RWM</sub> V <sub>R</sub>	80	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Output Current	I <sub>O</sub>	100	mA
Non-Repetitive Peak Forward Surge Current @ t = 10ms	I <sub>FSM</sub>	2.0	A
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

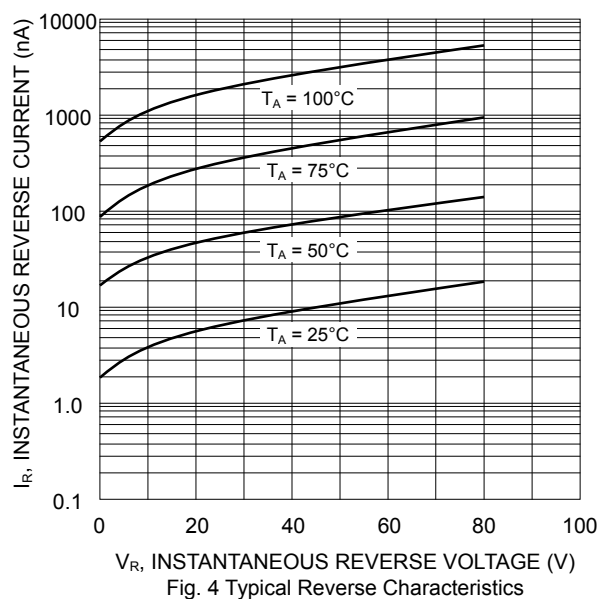
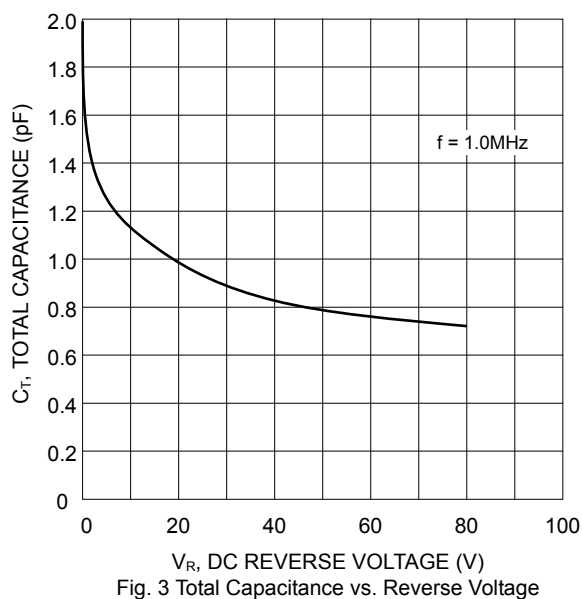
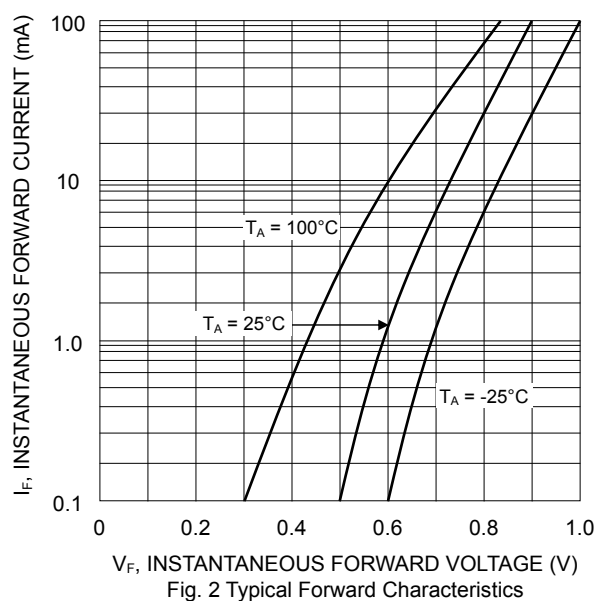
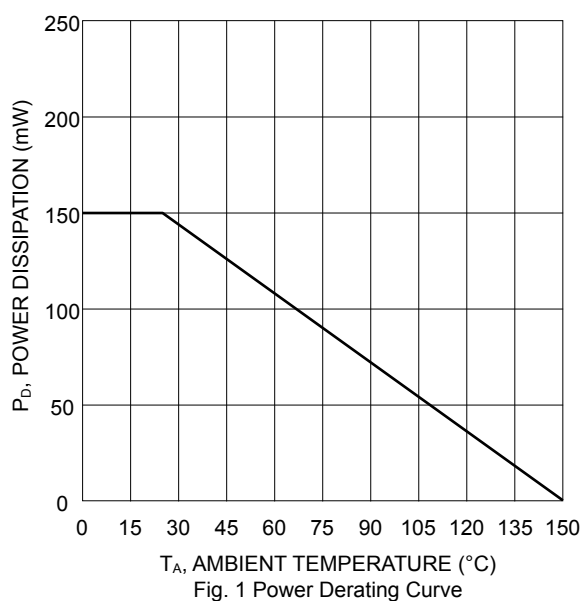
### Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P <sub>D</sub>	150	mW

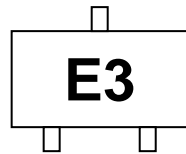
Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

## Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage Drop @ I <sub>F</sub> = 1.0mA @ I <sub>F</sub> = 10mA @ I <sub>F</sub> = 100mA	V <sub>FM</sub>		0.61 0.74 0.92	— — 1.2	V
Peak Reverse Leakage Current @ V <sub>R</sub> = 30V @ V <sub>R</sub> = 80V	I <sub>RM</sub>			100 500	nA
Diode Capacitance (V <sub>R</sub> = 0V, f = 1.0MHz)	C <sub>D</sub>		2.2	4.0	pF
Reverse Recovery Time (I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>RR</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω)	t <sub>rr</sub>		1.6	4.0	nS

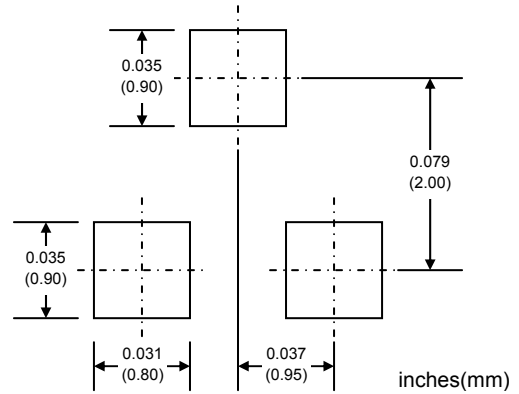


## MARKING INFORMATION



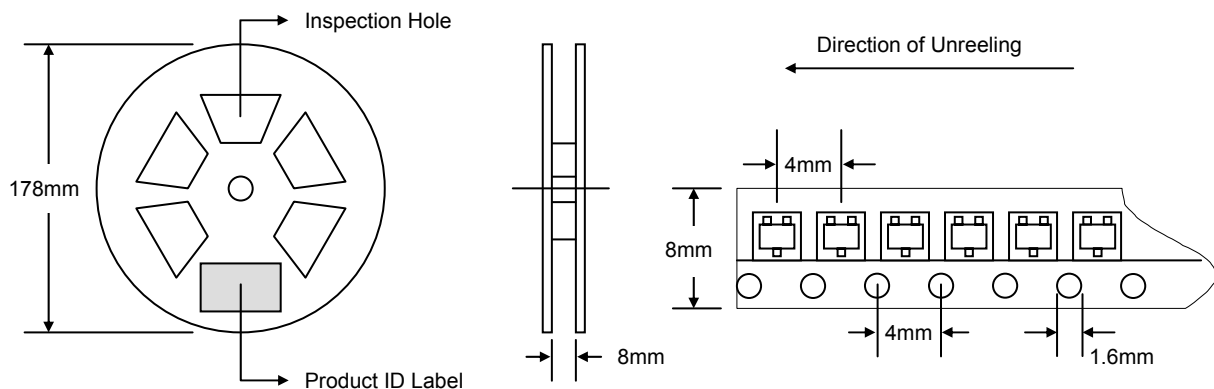
E3 = Device Code

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL




Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
1SS190-T1	SOT-23	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1SS190-T1-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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