WON-TOP ELECTRONICS

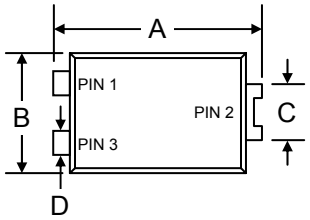
TMS10150

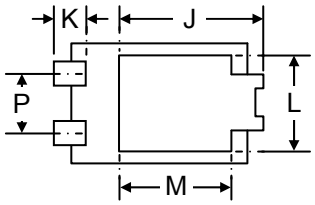
10A HIGH VOLTAGE SURFACE MOUNT TRENCH MOS SCHOTTKY RECTIFIER

RoHS Pb

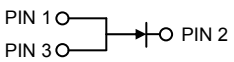
Features

- ***Trench MOS Schottky Technology***
- ***Low Profile Flatpack 1.1mm Case Height***
- Extremely Fast Switching
- Low Forward Voltage Drop
- Low Conduction Losses
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-0





TO-277		
Dim	**Min**	**Max**
A	6.40	6.60
B	3.80	4.10
C	1.70	1.90
D	0.80	1.00
E	5.20	5.50
G	0.33	0.43
H	1.00	1.20
J	4.35	4.65
K	0.74	0.76
L	3.10 Typical	
M	3.50	3.70
P	1.90 Typical	
All Dimensions in mm		



Mechanical Data

- Case: TO-277, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.09 grams (approx.)
- Mounting Position: Any
- Marking: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

Maximum Ratings @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	150	V
Average Rectified Output Current (Note 1) @T_L = 125°C	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	150	A
Thermal Resistance Junction to Lead (Note 1)	$R_{\theta JL}$	3.0	°C/W
Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	60	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Test Conditions		Symbol	Typ	Max	Unit
Forward Voltage (Note 3)	I_F = 5.0A	T_A = 25°C	V_F	0.77	—	V
	I_F = 10A			0.85	0.88	
	I_F = 5.0A	T_A = 125°C		0.62	—	
	I_F = 10A			0.68	0.72	
Reverse Leakage Current (Note 4)	V_R = 150V	T_A = 25°C	I_R	—	0.10	mA
		T_A = 125°C		—	20	

Note: 1. Mounted on aluminum substrate PC board with 30mm x 30mm pad area.
2. Mounted on FR-4 PC board with minimum recommended pad area.
3. Pulse width ≤ 300μs, 1% duty cycle.
4. Pulse width ≤ 40ms.

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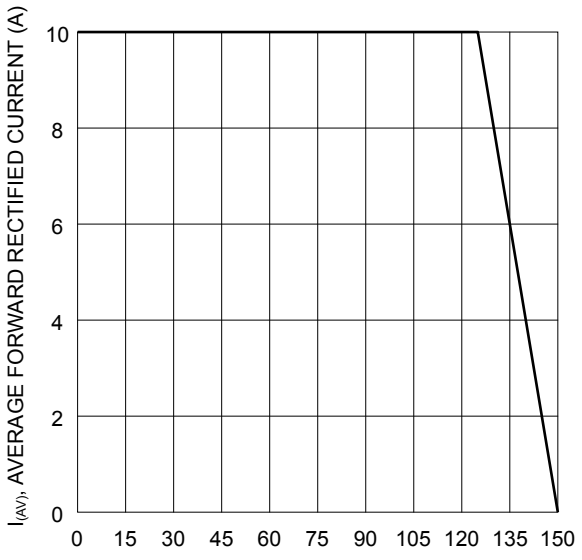


Fig. 1 Forward Current Derating Curve

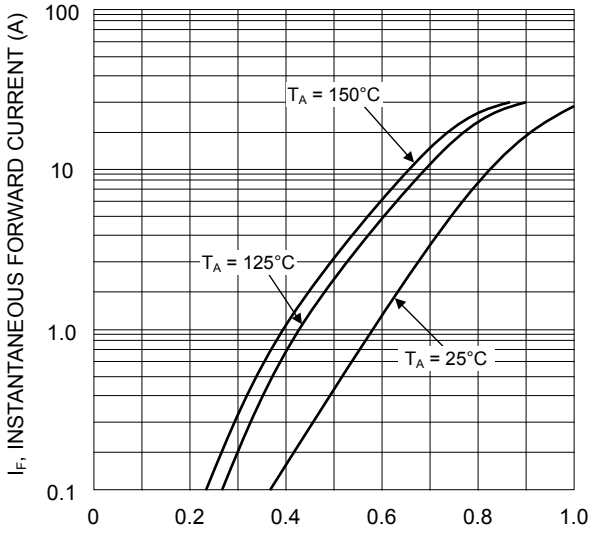


Fig. 2 Typical Forward Characteristics

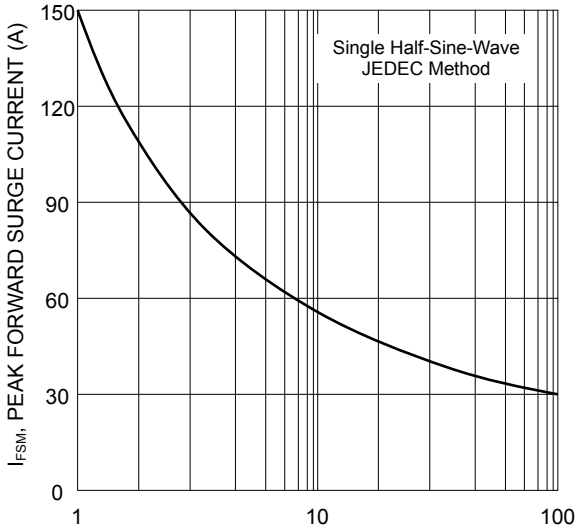


Fig. 3 Forward Surge Current Derating Curve

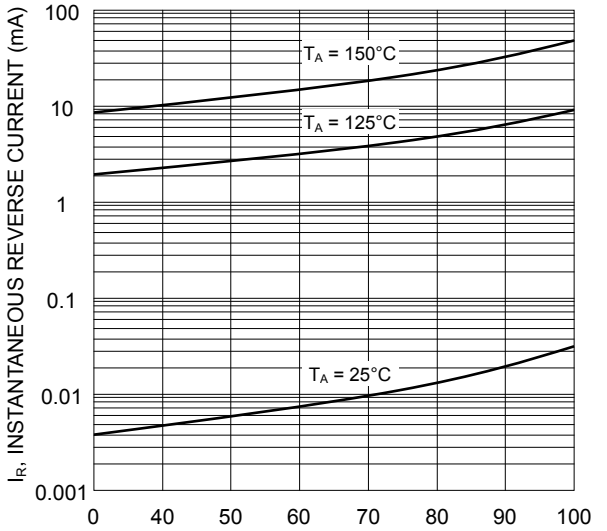


Fig. 4 Typical Reverse Characteristics

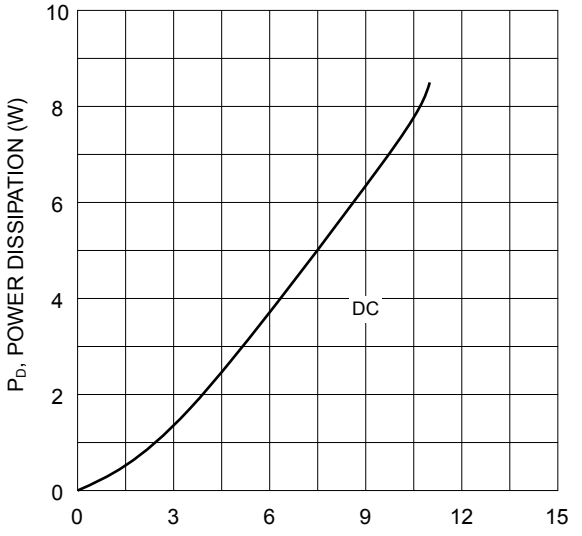


Fig. 5 Forward Power Dissipation

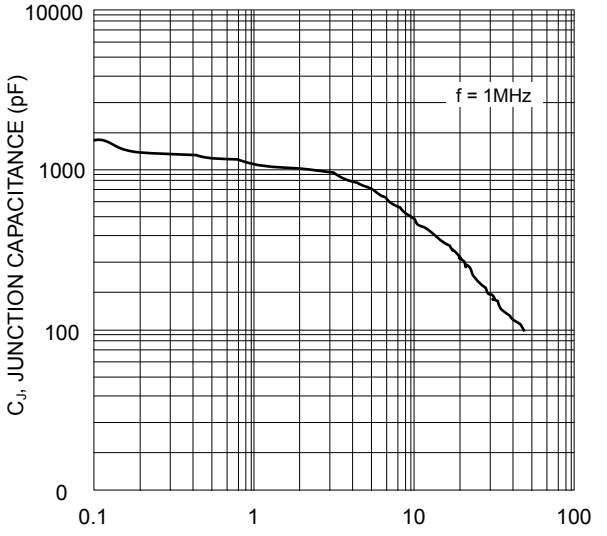
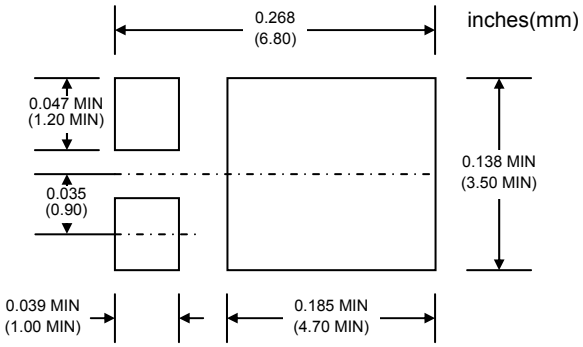


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION

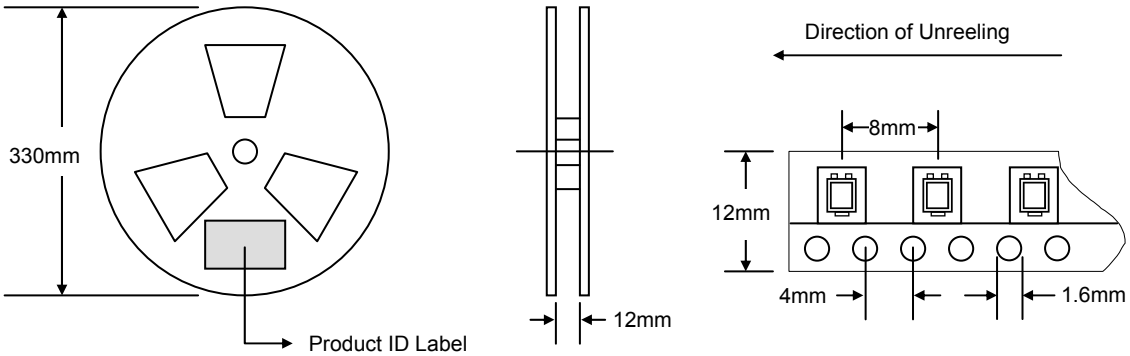
S10150 = Device Code

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)
330	3,000	340 x 337 x 45	6,000	370 x 370 x 420	48,000	18.0

Note: 1. Paper reel, white or gray color.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
TMS10150-T3	TO-277	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, TMS10150-T3-LF**.

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