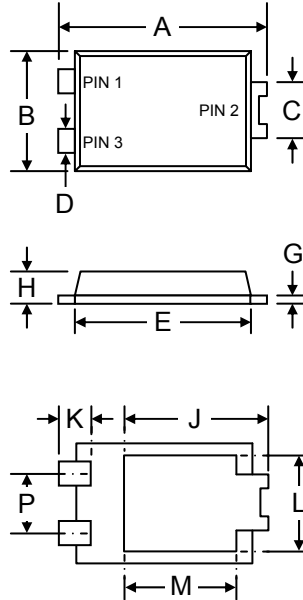


Features

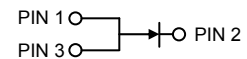
- **Trench MOS Schottky Technology**
- **Low Profile Flatpack 1.1mm Case Height**
- Extremely Fast Switching
- Low Forward Voltage Drop
- Low Conduction Losses
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-0

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**



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		



Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

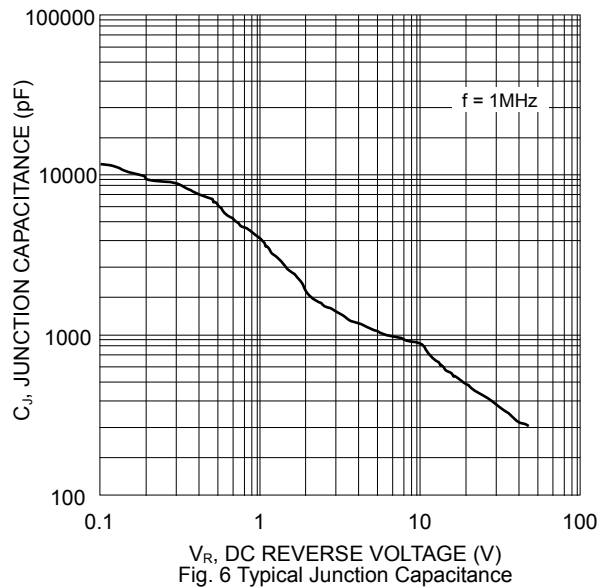
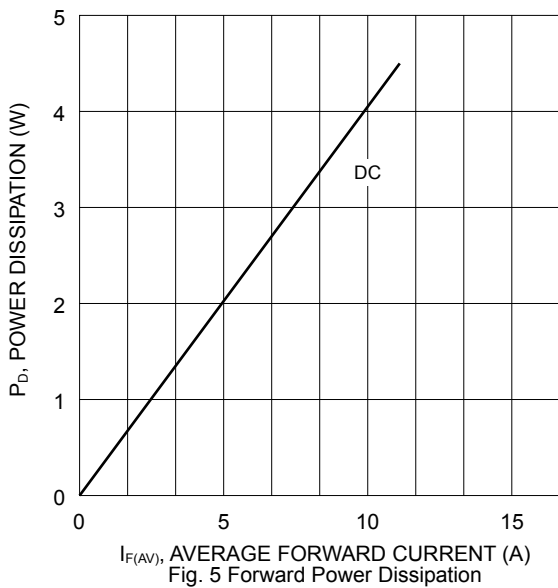
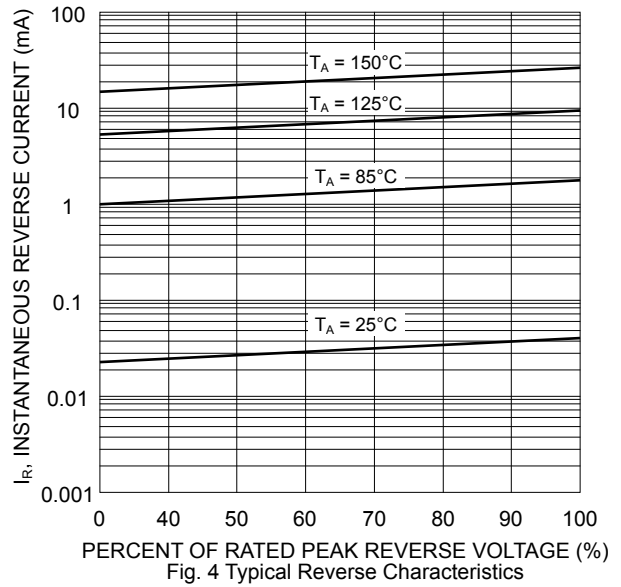
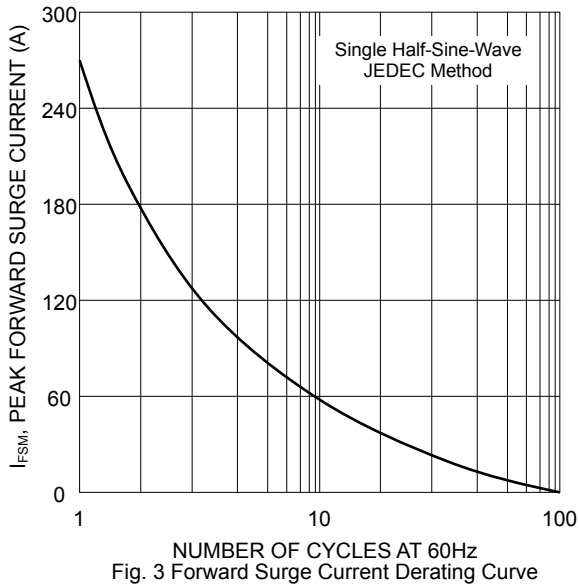
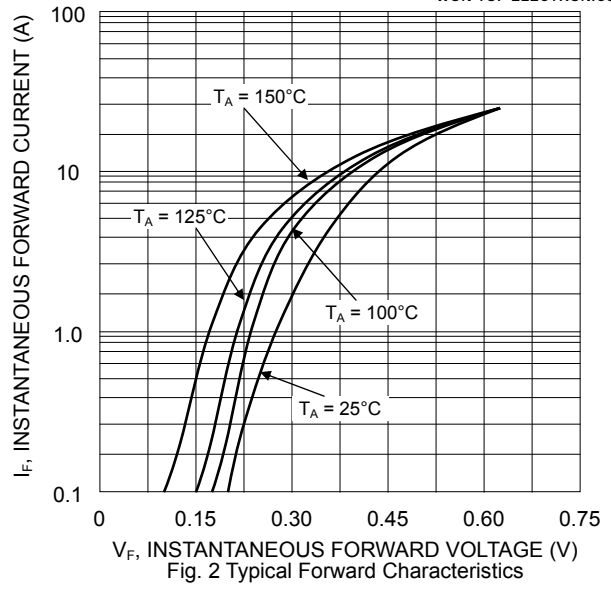
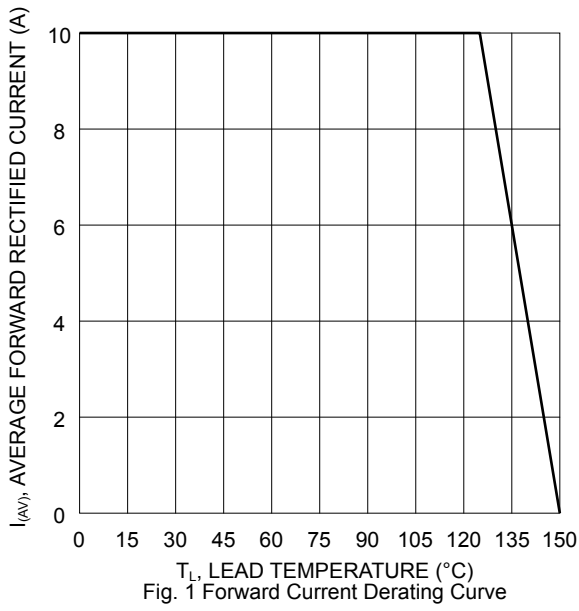
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
Average Rectified Output Current (Note 1) @ $T_L = 125^\circ\text{C}$	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	275	A
Thermal Resistance Junction to Lead (Note 1)	R_{JL}	4.0	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Ambient (Note 2)	R_{JA}	73	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-40 to +150	$^\circ\text{C}$

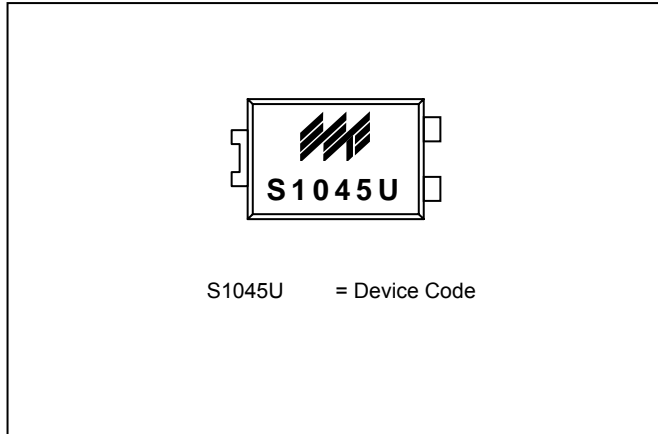
Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Test Conditions		Symbol	Typ	Max	Unit
	I_F	T_A				
Forward Voltage	$I_F = 5.0\text{A}$	$T_A = 25^\circ\text{C}$	V_F	0.38	—	V
	$I_F = 10\text{A}$			0.42		
	$I_F = 5.0\text{A}$	$T_A = 125^\circ\text{C}$		0.32	—	
	$I_F = 10\text{A}$			0.38	0.41	
Reverse Leakage Current (Note 3)	$V_R = 45\text{V}$	$T_A = 25^\circ\text{C}$	I_R	0.05	0.30	mA
		$T_A = 150^\circ\text{C}$		28	75	

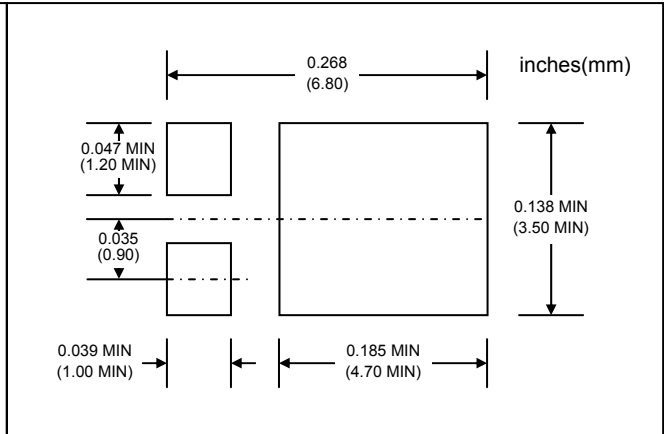
- Note: 1. Mounted on aluminum substrate PC board with 30mm x 30mm pad area.
 2. Mounted on FR-4 PC board with minimum recommended pad area.
 3. Pulse width $\leq 40\text{ms}$.



MARKING INFORMATION

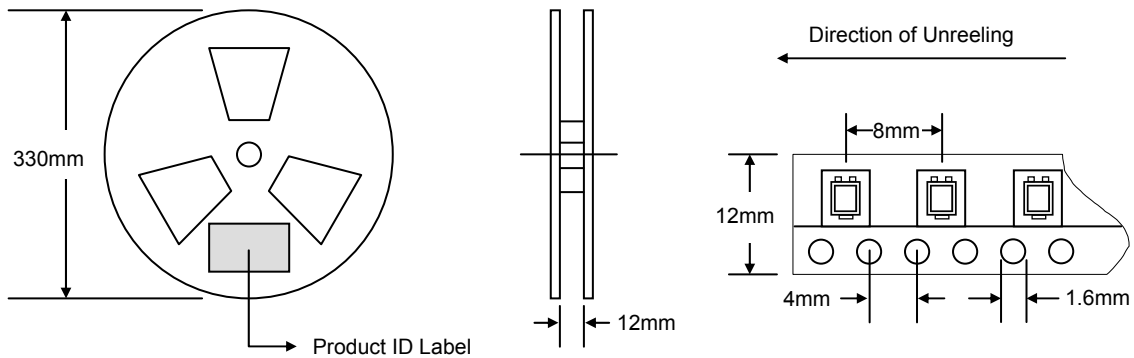


RECOMMENDED FOOTPRINT



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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
TMS1045U-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, TMS1045U-T3-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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