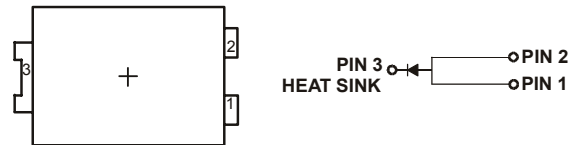


**10.0A SCHOTTKY BARRIER RECTIFIERS 45V****PRIMARY CHARACTERISTICS**

V_{RRM}	45V
I_O	10A
V_F	0.47V
$T_{J,Max}$	150°C

**SCHEMATIC DIAGRAM
TO-277B PACKAGE****FEATURES**

- Low forward voltage drop
- Super long operating life
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case : Molded plastic, TO-277B
- Polarity : Shown above
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

Maximum Ratings

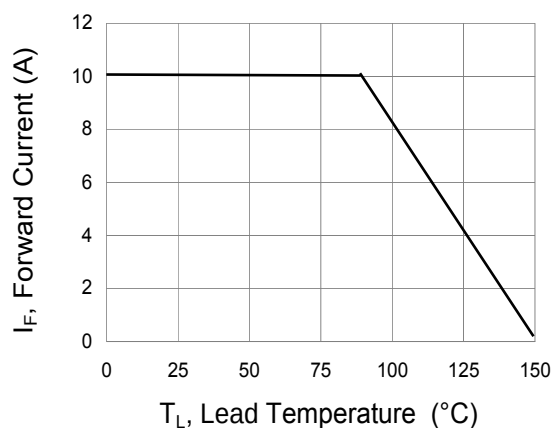
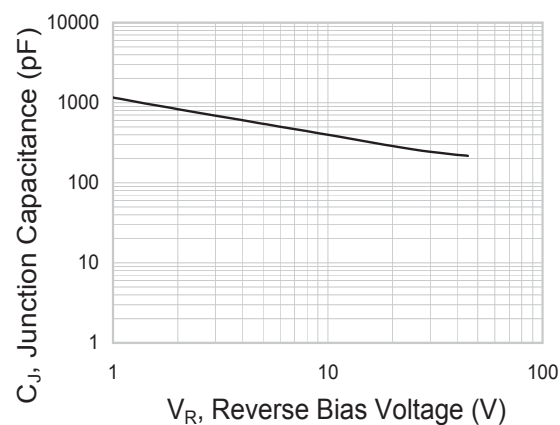
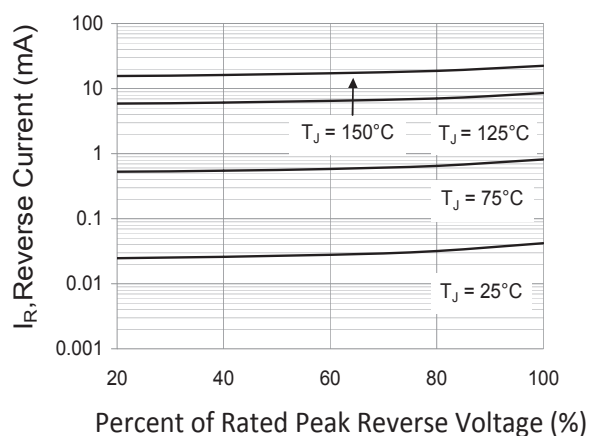
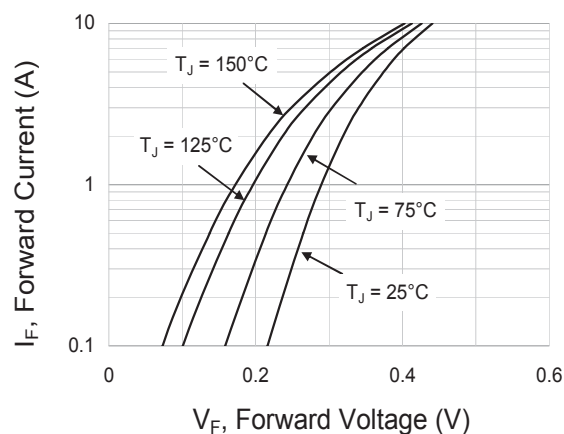
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1045LPS	1045L	45V	31.5V	45V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_L = 90^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	275A	8.3ms, half sine
Repetitive Peak Reverse Current	I_{RRM}	1A	$t_p = 2\mu\text{s}, F = 1\text{kHz}$
Maximum Forward Voltage Drop Per Element	V_F	.47V	$I_{FM} = 10\text{ A}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 50mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Maximum thermal Resistance	$R_{\theta JC}$	8.0°C/W	
Repetitive Peak Avalanche Power	P_{ARM}	10000W	$t_p = 1\mu\text{s}$ $T_J = 25^\circ\text{C}$

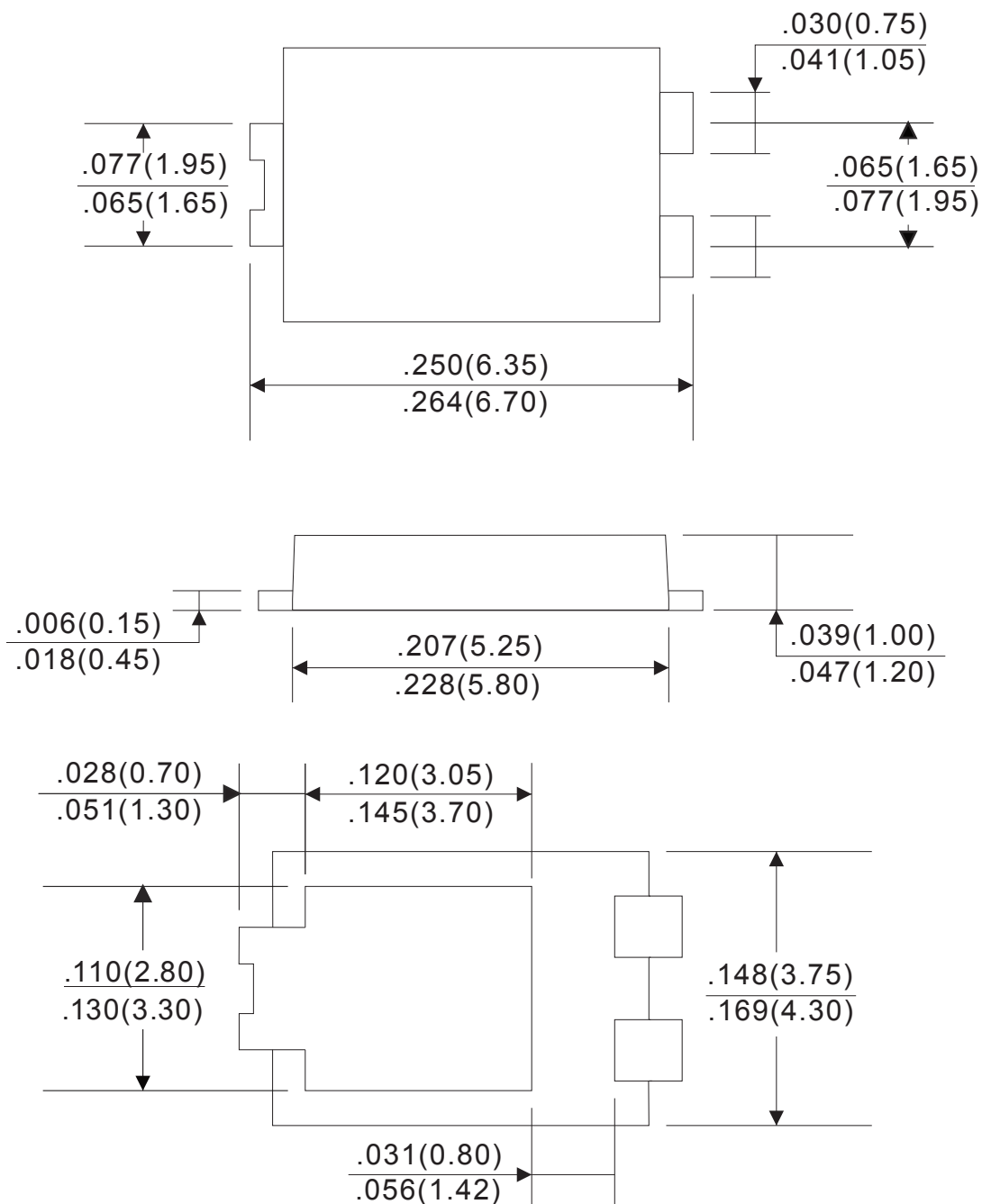
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

RATING AND CHARACTERISTIC CUEVES

Fig.1 Forward Current Derating Curve

Fig.2 Typical Junction Capacitance

Fig.3 Typical Reverse Characteristics

Fig.4 Typical Forward Characteristics



Outline Drawing

TO-277B



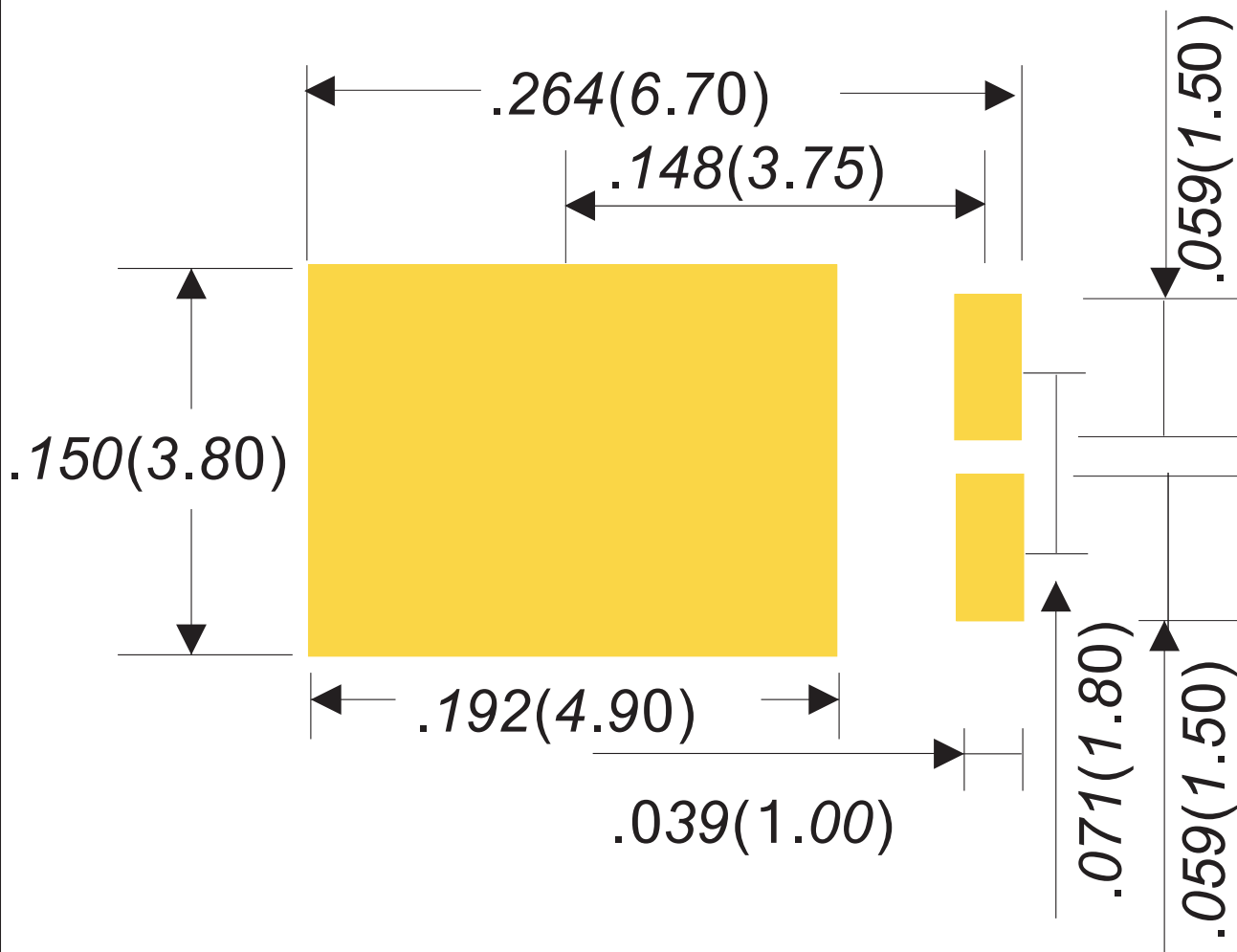
Dimensions in inches and (millimeters)

Rev.D



Suggested Soldering Pad Layout

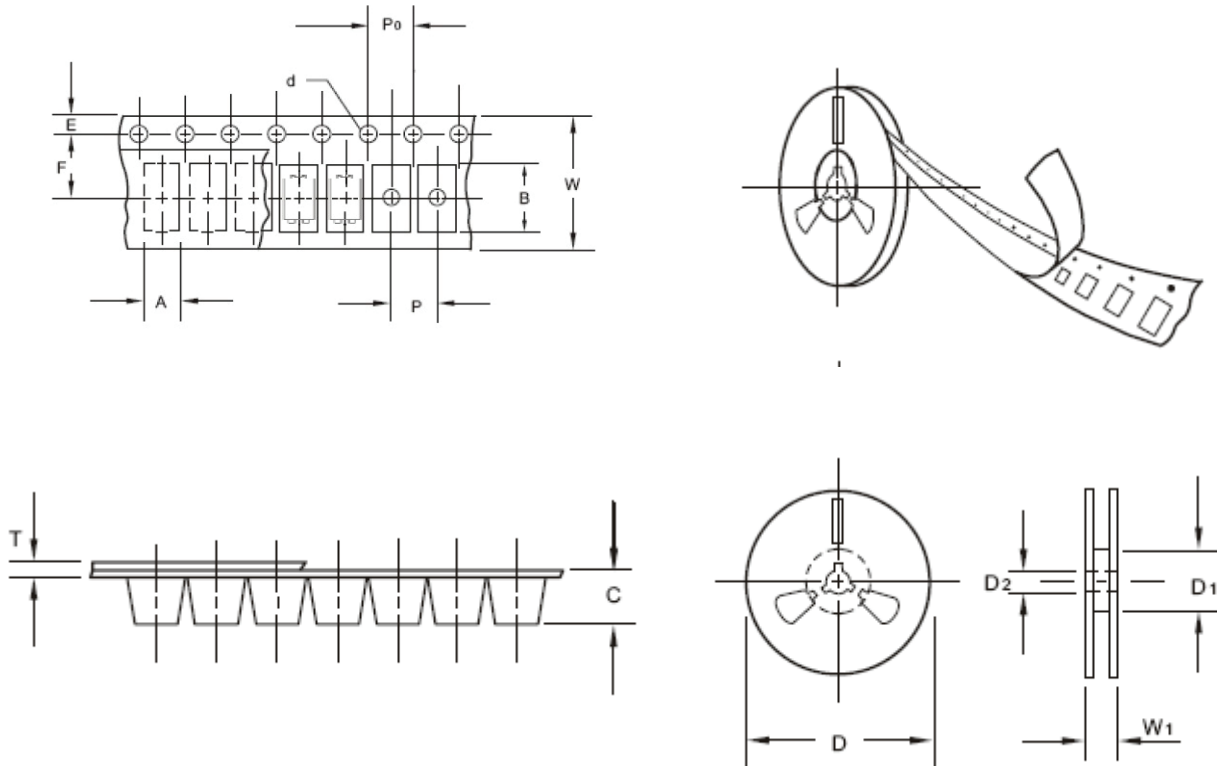
TO-277B



Dimensions in inches and (millimeters)

Rev.B

Reel Taping Specification - Surface Mount Device/TO-277B



Item	Symbol	Tolerance (mm)	TO-277B (mm)
Carrier Width	A	0.1	4.38
Carrier Length	B	0.1	6.9
Carrier Depth	C	0.1	1.4
Sprocket Hole	d	0.1	1.5
13" Reel Outside Diameter	D	2	330
13" Reel Inner Diameter	D1	Min	100
Feed Hole Diameter	D2	0.5	13
Sprocket Hole Position	E	0.1	1.75
Punch Hole Position	F	0.1	7.5
Punch Hole Pitch	P	0.1	8
Sprocket Hole Pitch	Po	0.2	4
Overall Tape Thickness	T	0.1	0.34
Tape Width	W	0.3	12
Reel Width	W1	1	20

Ordering Information:

Device PN	Marking ⁽⁴⁾	Packing
MBR1045LPS-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	1045L	Tape&Reel: 5 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Packing code suffix "G" for RoHS product : Packing code Suffix "H" for halogen free product
All materials and products supplied comply with the U.S. Toxic Substances Control Act statement, PBT Chemicals

(3) Willas brand abbreviation, Label Type does not display

(4) There may be additional marking, which relates to the lot trace code information (data code and vendor code), the logo or the environmental category on the device

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