



PRIMARY CHARACTERISTICS

V_{RRM}	45V
I_O	10A
$V_F@I_F=10A(TYP)$	0.43V
$T_{J,Max}$	150°C

FEATURES

- Ultra Low Forward Voltage Drop
- High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1)
- Moisture Sensitivity Level 1

TO-277B PACKAGE

Marking :1045UL or 1045L



V:Product Lines

Y:A.D. late code, EX : 4-2014,5-2015

M:Month, EX : 1-1,2-2,---10-O,11-N,12-D



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 and Electrical Characteristics @TA=25°C unless otherwise specified

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

Parameter	Symbol	MBR1045 ULPS		Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45		V
Working Peak Reverse Voltage	V_{RWM}			
DC blocking voltage	V_R			
RMS Rectified Voltage	$V_{R(RMS)}$	31.5		V
Average Rectified Output Current TL = 90°C	I_O	10		A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method)	I_{FSM}	270		A
Forward Voltage Drop @IF=2A, Tj=25°C @IF=5A, Tj=25°C @IF=10A, Tj=25°C @IF=2A, Tj=125°C @IF=5A, Tj=125°C @IF=10A, Tj=125°C	VF	TYP	MAX	V
		0.33	-----	
		0.38	-----	
		0.43	0.50	
		0.22	-----	
		0.28	-----	
		0.39	0.45	
Peak Reverse Curent @VR=36V, Tj=25°C	IR	120		uA
At Rated DC Blocking Voltage @VR=45V, Tj=25°C		0.25		mA
@VR=45V, Tj=125°C		100		
Typical Thermal Resistance	$R_{\theta JC}$	8.0		°C/W
Operating junction temperature range	Tj	-55 to + 150		°C
storage temperature range	Tstg	-55 to + 150		°C



RATING AND CHARACTERISTIC CUEVES

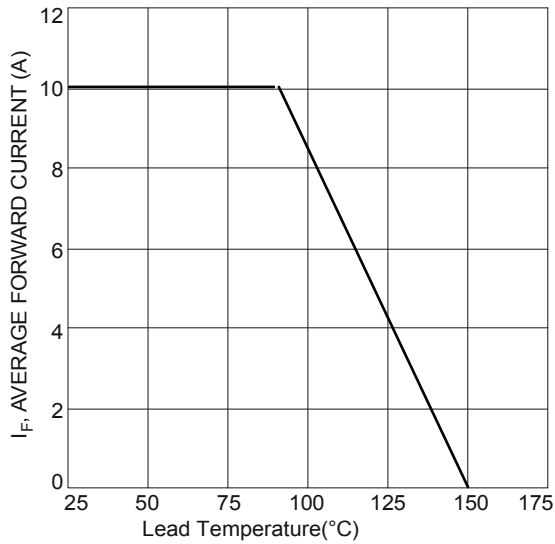


Figure 1 Forward Current Derating Curve

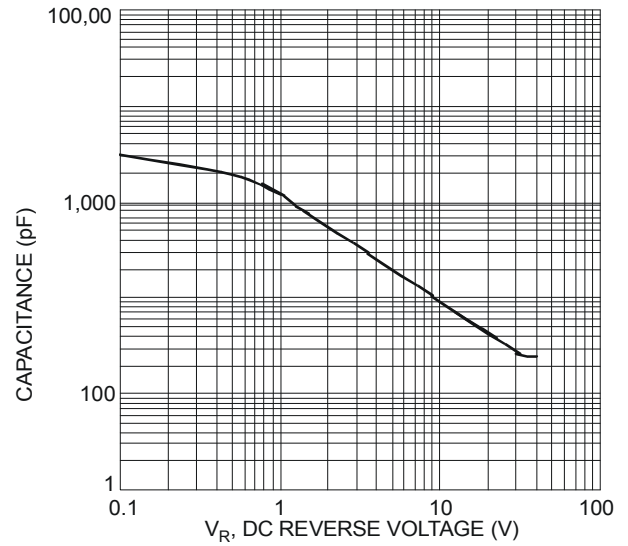


Figure 2 Typical Junction Capacitance

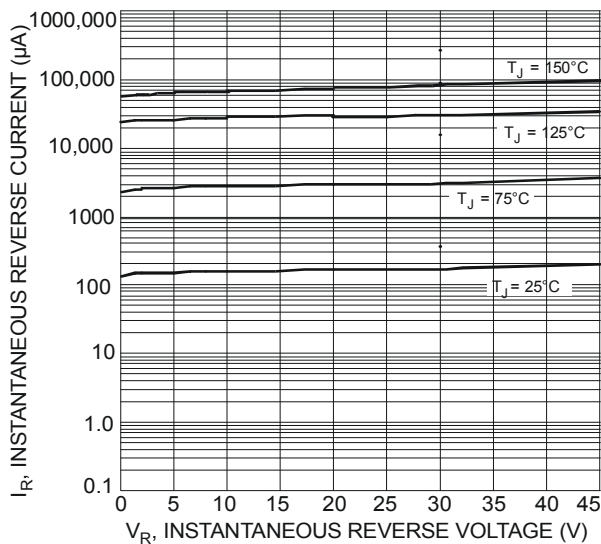


Figure 3 Typical Reverse Characteristics

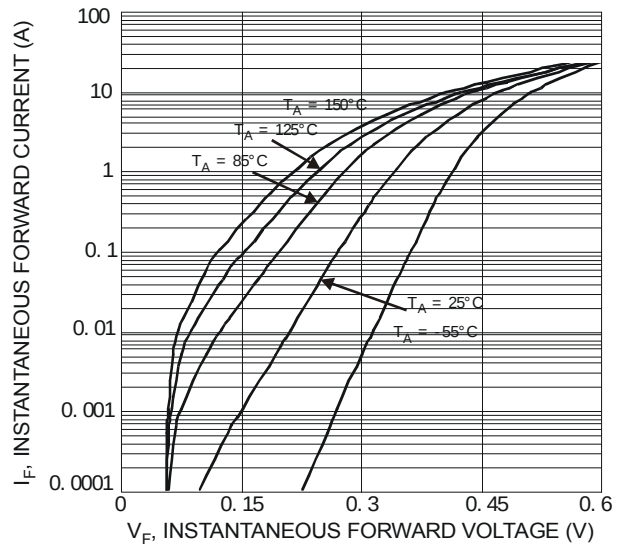
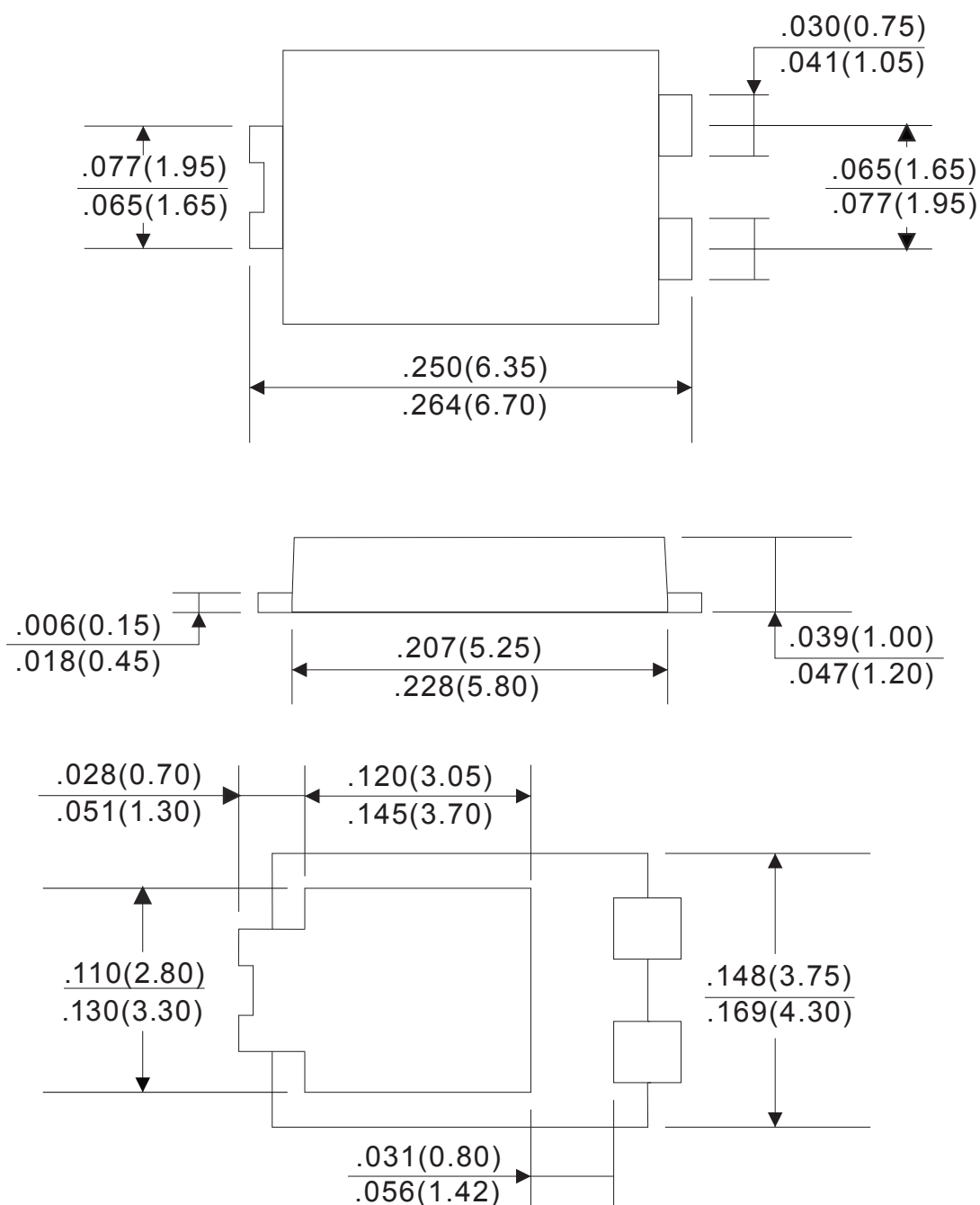


Figure 4 Typical Forward Characteristics



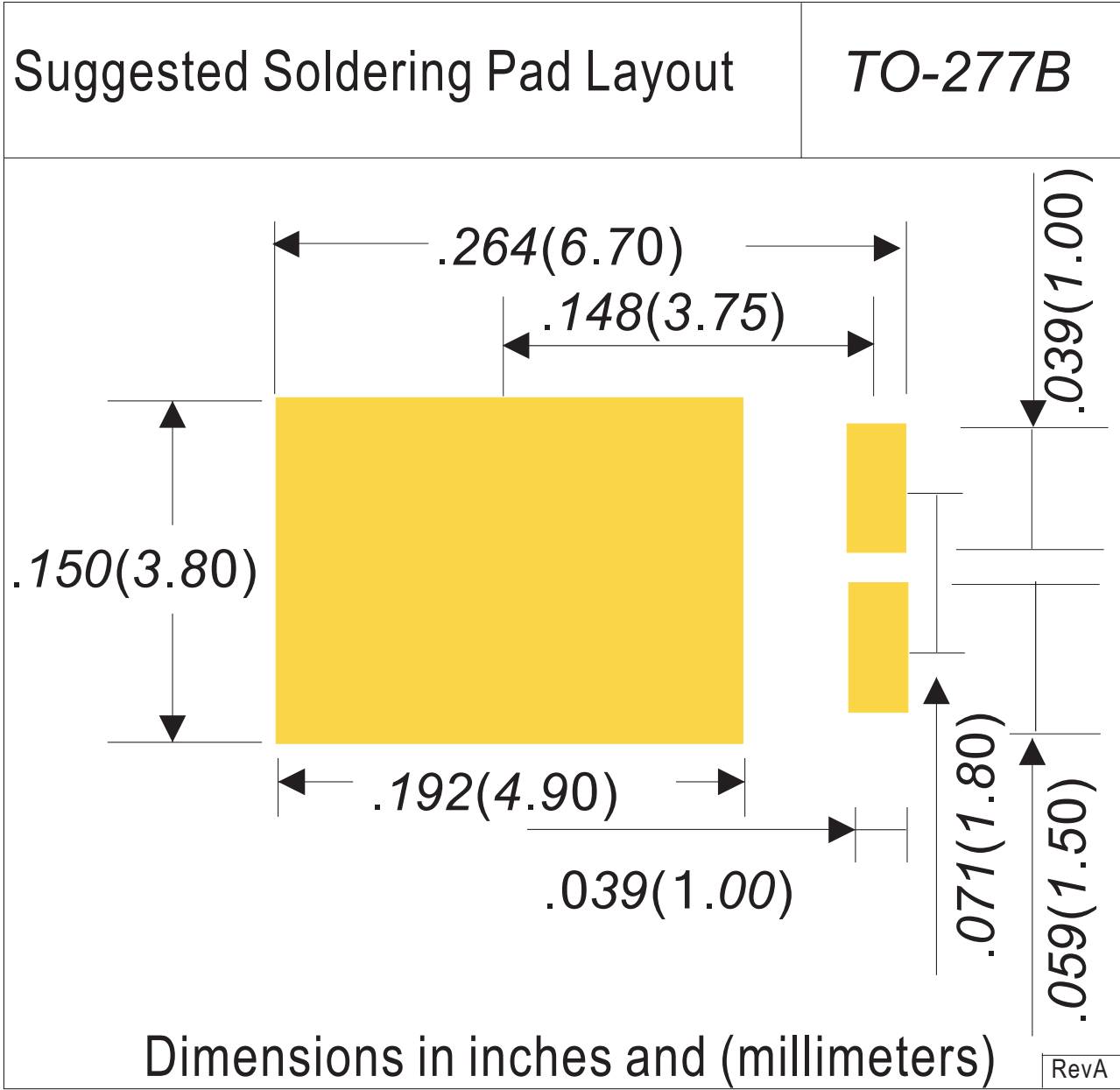
Outline Drawing

TO-277B



Dimensions in inches and (millimeters)

Rev.D



Ordering Information:

Device PN	Marking ⁽⁴⁾	Packing
MBR1045ULPS -T ⁽¹⁾ G ⁽²⁾ -WS ⁽³⁾	1045UL or 1045L	Tape&Reel: 5Kpcs/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 product 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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