

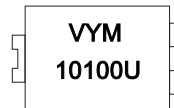
PRIMARY CHARACTERISTICS	
P_D	6.8W
V_{RRM}	100V
I_O	10A
V_F	0.53V Typ.
$T_{J,Max}$	150°C

FEATURES

- Bypass Diodes for Solar Panels
- Maximum Junction Temperature 150°C
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability
- Moisture Sensitivity Level 1

TO-277B PACKAGE

- Body Marking Example
Marking :10100U



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

PIN 3 ○ PIN 2
○ PIN 1

MECHANICAL DATA

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

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Parameter	Symbol	MBR10100ULPS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS Rectified Voltage	$V_{R(RMS)}$	70	V
Average Rectified Output Current (Note1)	I_O	10	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Forward Voltage Drop @IF=5A, Tj=25°C @IF=10A, Tj=25°C @IF=5A, Tj=125°C @IF=10A, Tj=125°C	V_F	0.58 0.68 0.53 0.64	V
Peak Reverse Current @VR=100V, Tj=25°C	I_R	70	μA
At Rated DC Blocking Voltage @VF=100V, Tj=125°C		15	mA
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	73	°C/W
Junction to Ambient (Note3)	$R_{\theta JL}$	31	
Operating junction temperature range	T_j	-55 to +150	°C
storage temperature range	T_{stg}	-55 to +150	°C

Note:1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb, 2oz. Copper, minimum recommend pad layout .18.8mm×14.4. Anode pad dimensions 5.6mm×14.4mm.



FIG1: IF (AV) --TL Derating

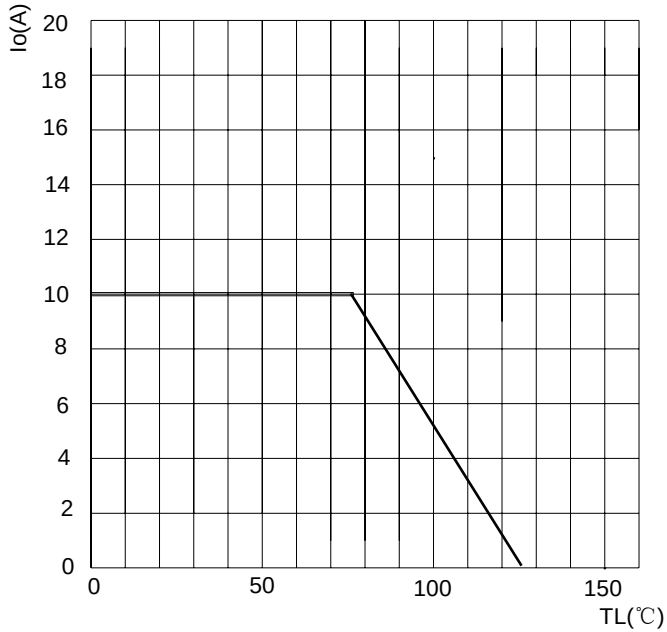


FIG2: Surge Forward Current Capability

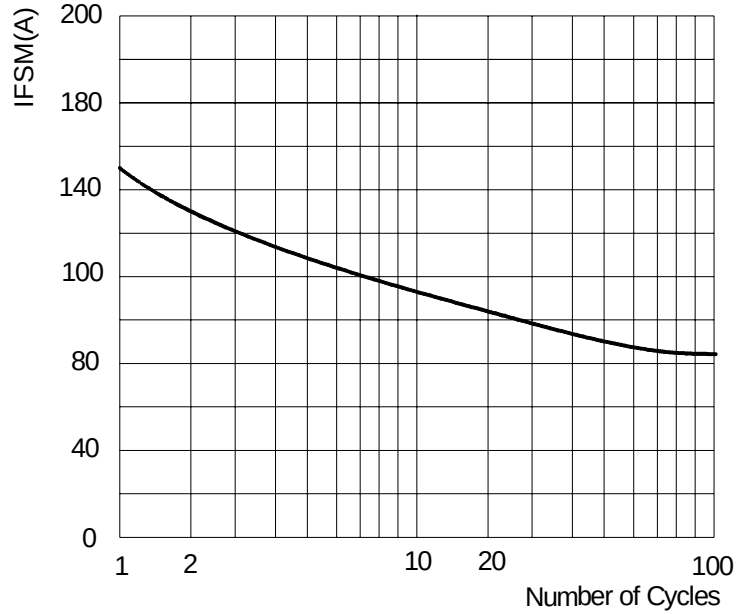


FIG3: Typical Reverse Characteristics

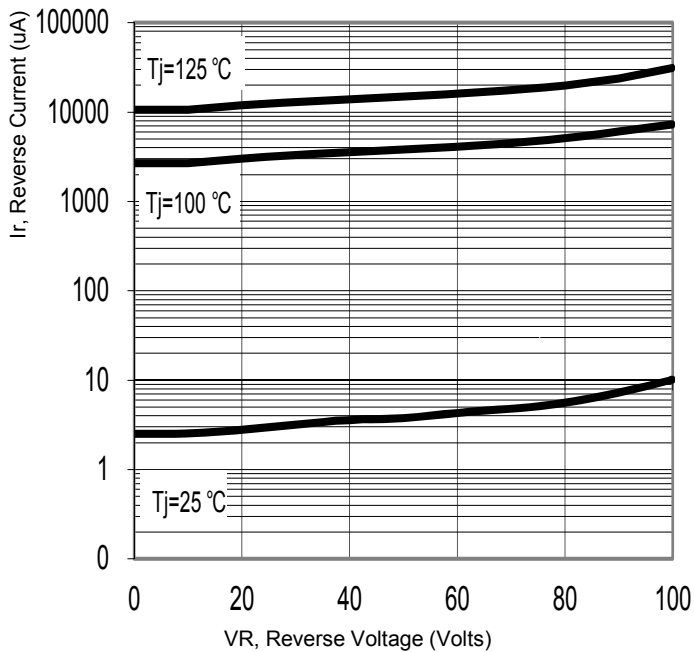
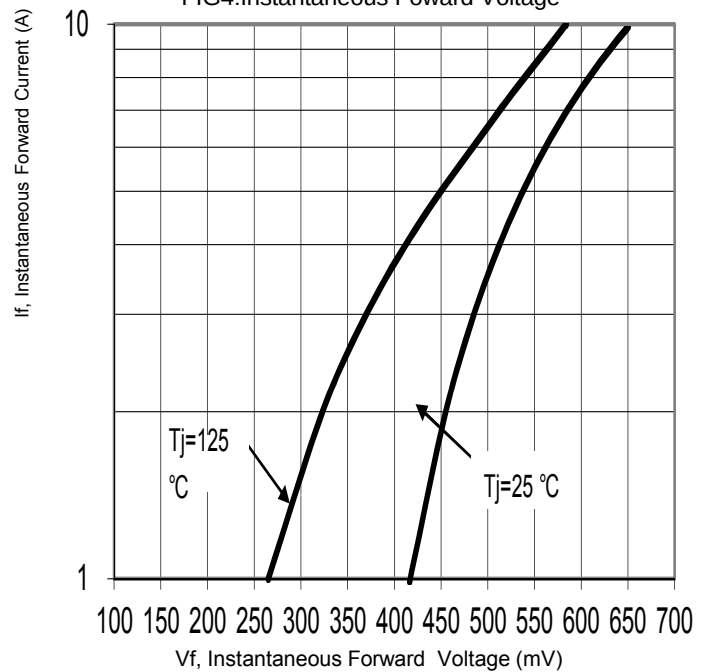
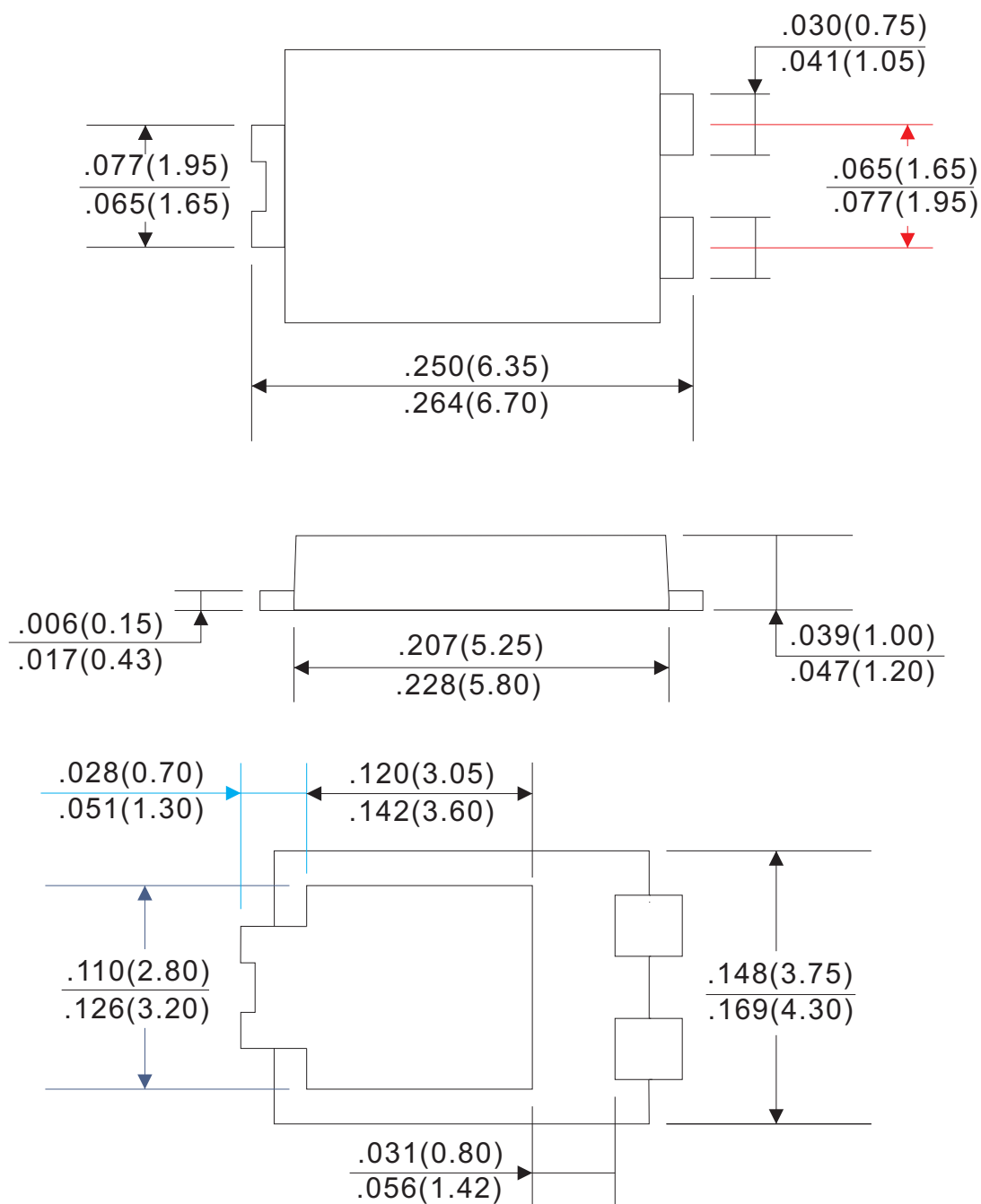


FIG4: Instantaneous Forward Voltage



Outline Drawing

TO-277B



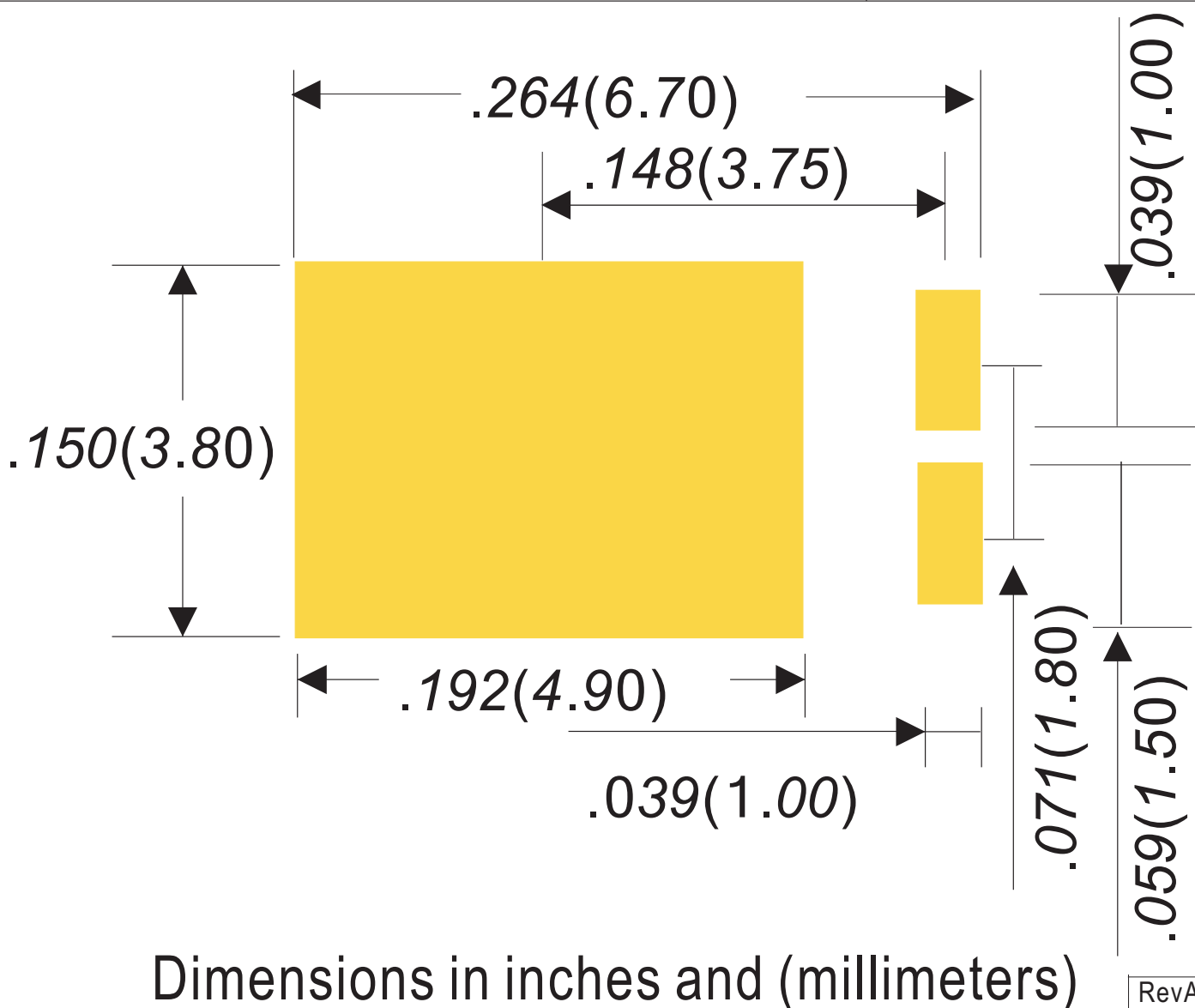
Dimensions in inches and (millimeters)

Rev.A



Suggested Soldering Pad Layout

TO-277B



RevA

Ordering Information:

Device PN	Packing
MBR10100ULPS -T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 5 Kpcs/Reel

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

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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