

5A SCHOTTKY BARRIER RECTIFIERS - 100V
PRIMARY CHARACTERISTICS

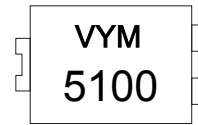
V_{RRM}	100V
I_O	5A
V_F	0.85V
$T_{J,Max}$	150°C

FEATURES

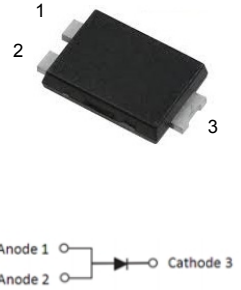
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals
- Moisture Sensitivity Level 1

TO-277B PACKAGE

Marking Code : 5100



V: Product Lines
Y: 1-digit BC year code, 4-2014, 5-2015...etc
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

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR5100PSN	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	5.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0	A
Maximum instantaneous forward voltage at 5.0A	V_F	0.85	V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	0.05 10	mA
Typical thermal resistance	R_{qJA}	60.0	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

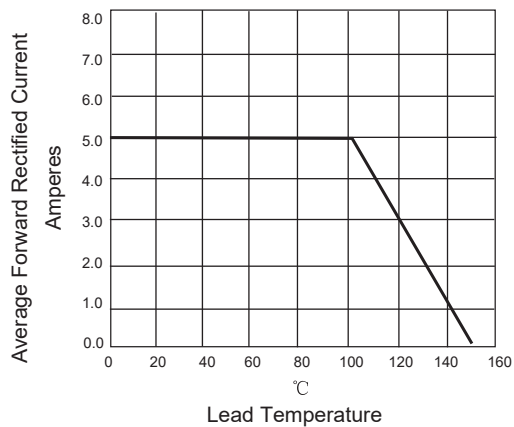


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

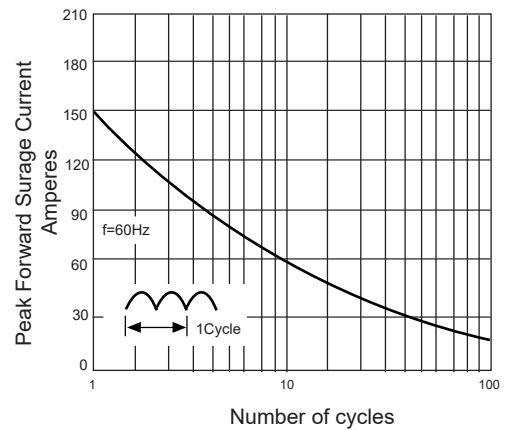


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

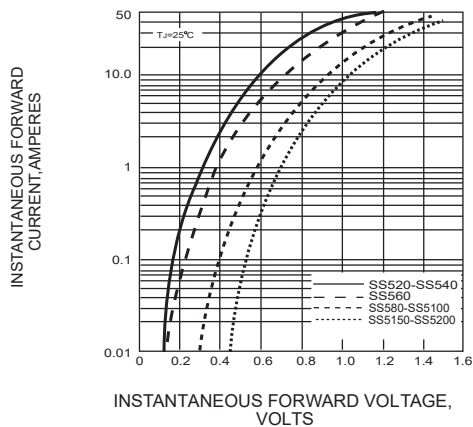
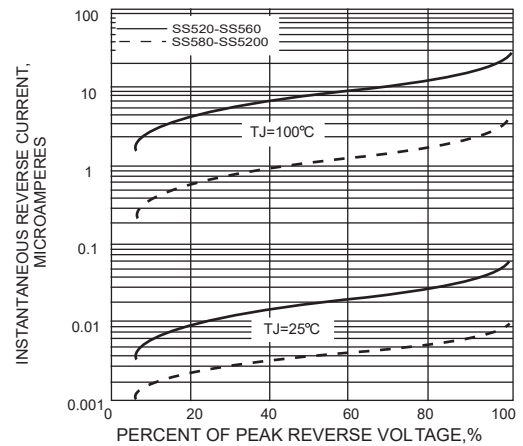
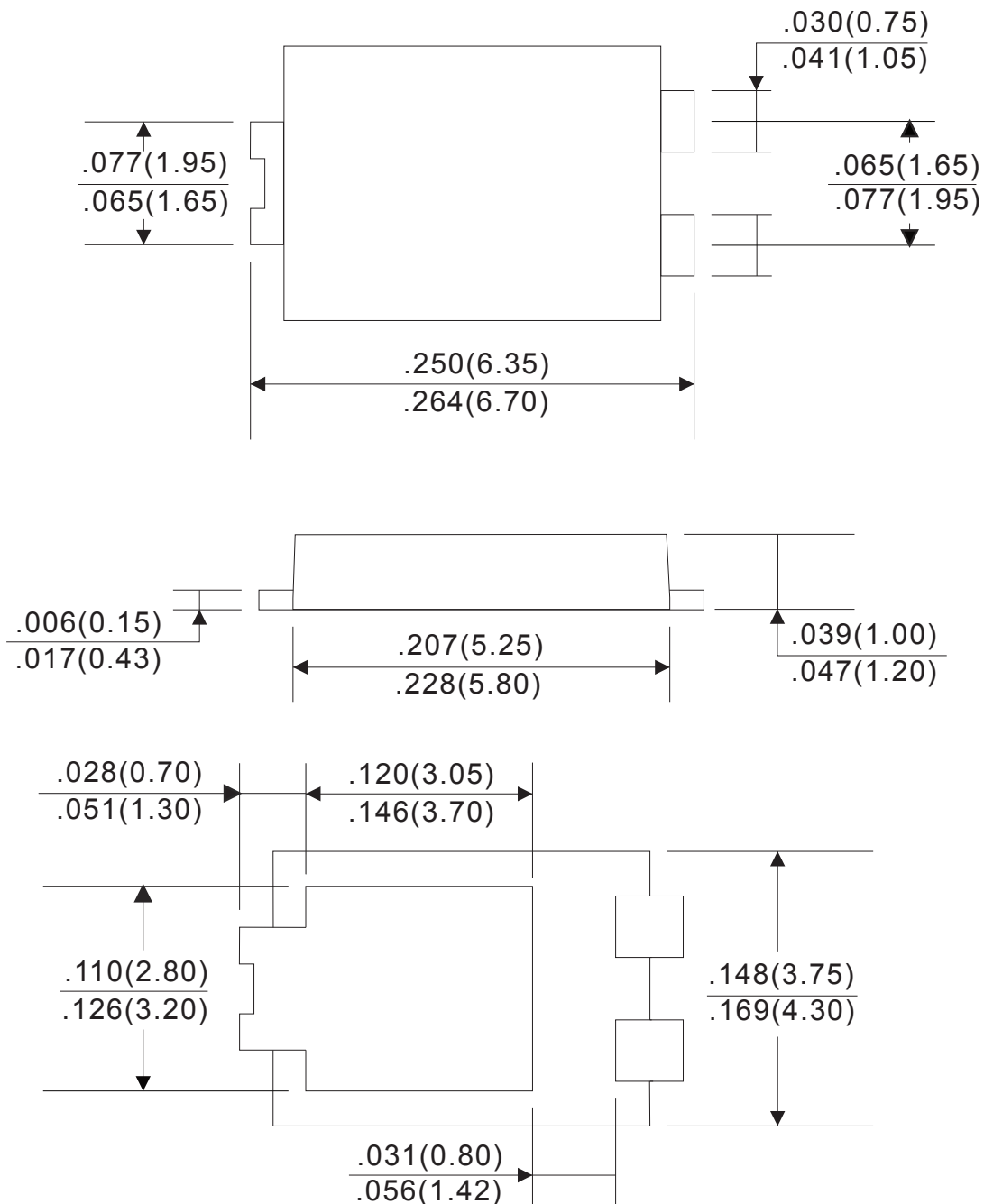


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Outline Drawing

TO-277B

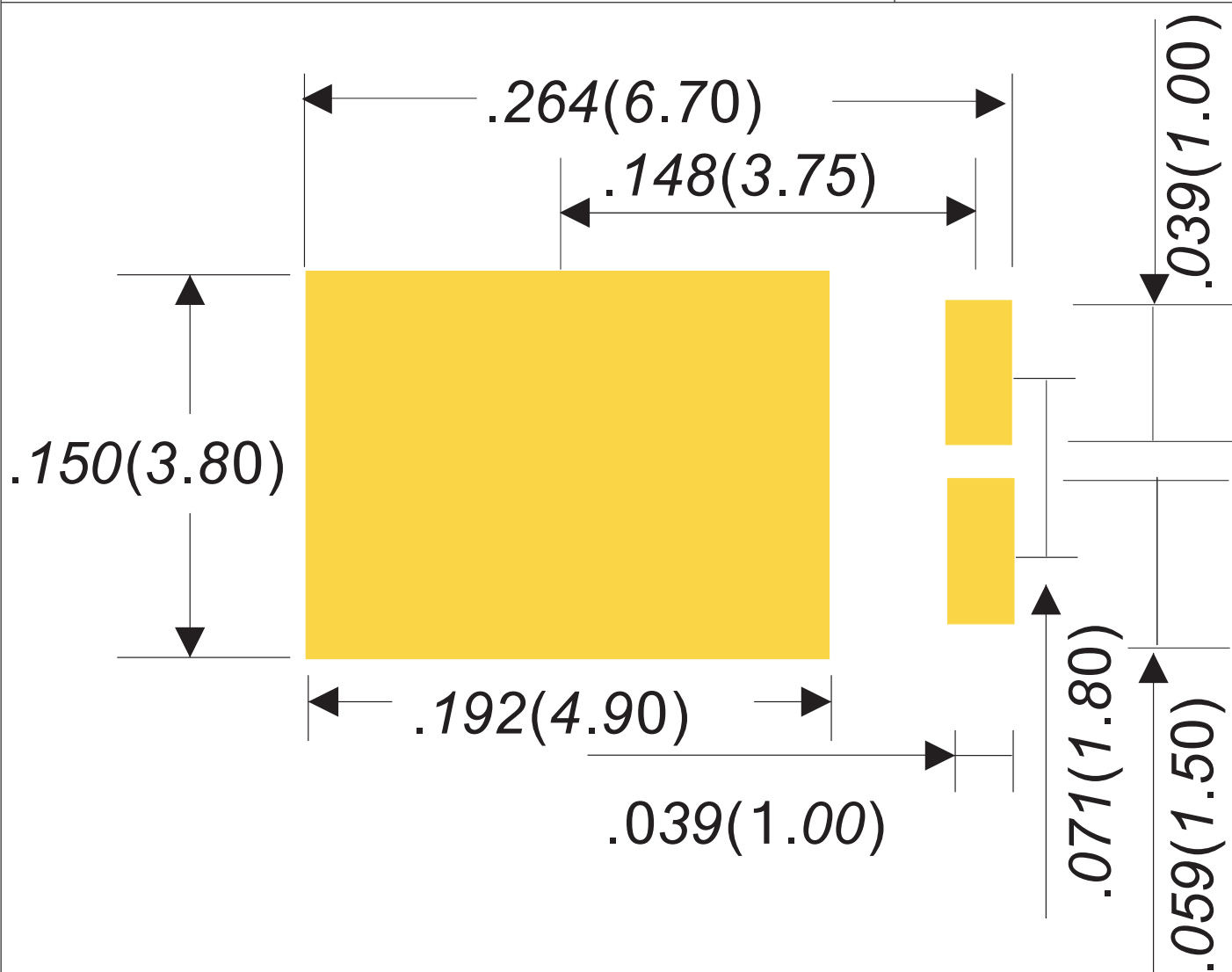


Dimensions in inches and (millimeters)

Rev.B

Suggested Soldering Pad Layout

TO-277B



Dimensions in inches and (millimeters)

RevA

Ordering Information:

Device PN	Packing
MBR5100PSN -T ⁽¹⁾ H ⁽²⁾ -WS	Tape&Reel: 5 Kpcs/Reel

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

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

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