

MBRS4045 THRU MBRS40200

40 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 2.24 grams

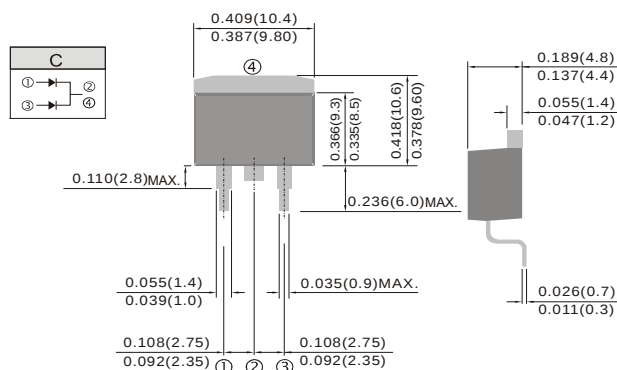
VOLTAGE RANGE

45 to 100 Volts

CURRENT

40 Ampere

TO-263 / D PAK



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MBRS 4045	MBRS 4060	MBRS 40100	MBRS 40150	MBRS 40200	UNITS
Maximum Recurrent Peak Reverse Voltage	45	60	100	150	200	V
Maximum RMS Voltage	32	42	70	105	140	V
Maximum DC Blocking Voltage	45	60	100	150	200	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Tc=100°C	40					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	300					A
Maximum Instantaneous Forward Voltage at 40A	0.55	0.75	0.85	0.92		V
Maximum DC Reverse Current Ta=25°C	0.1		0.02			mA
at Rated DC Blocking Voltage Ta=125°C	5		2			mA
Typical Junction Capacitance (Note1)	1000					pF
Typical Thermal Resistance R JA (Note 2)	3.5					°C/W
Operating Temperature Range Tj	-55 — +150					°C
Storage Temperature Range Tstg	-55 — +150					°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (MBRS4045 THRU MBRS40200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

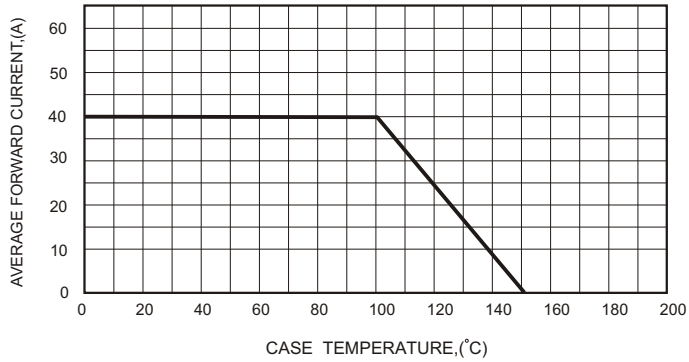


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

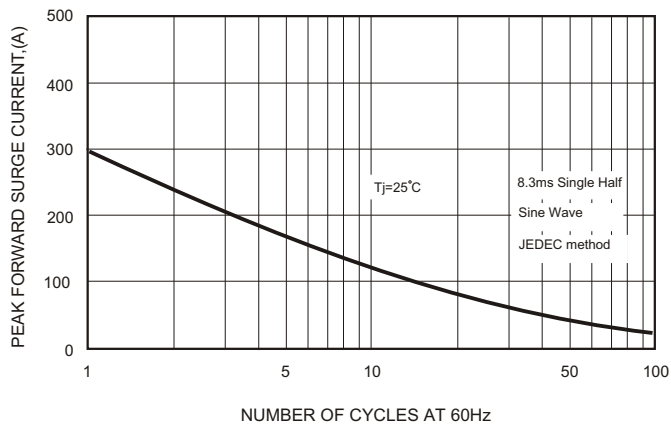


FIG.4-TYPICAL JUNCTION CAPACITANCE

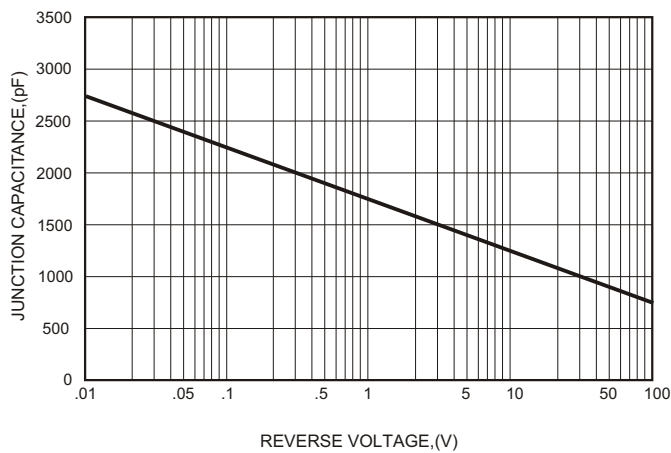


FIG.2-TYPICAL FORWARD CHARACTERISTICS

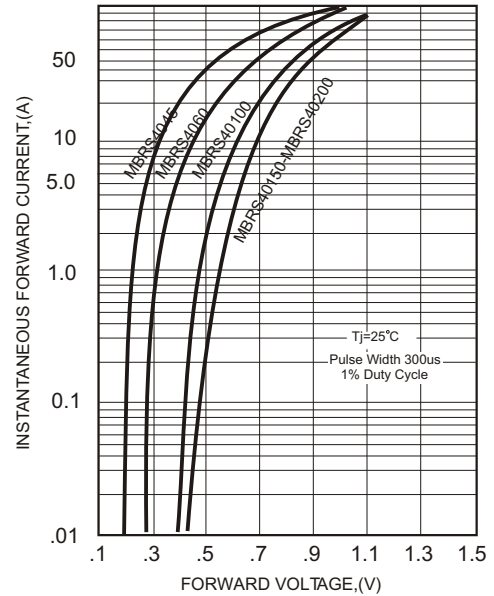
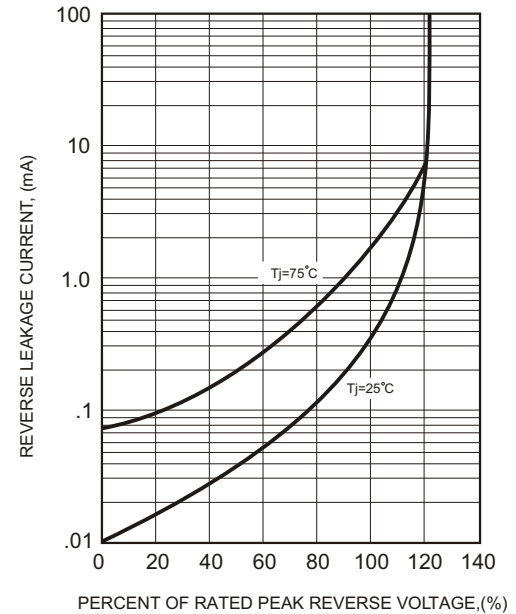


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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