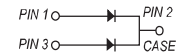


MBR4045LCT **40.0Amp Schottky Barrier Rectifiers**

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
260°C/10 seconds at terminals

TO-220AB



Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Maximum Ratings (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOLS	MBR4045LCT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	32	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward rectified current at $T_c=110^{\circ}C$ Per device Per diode	$I_{(AV)}$	40.0 20.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	280.0	A
Typical thermal resistance	R_{qJC}	2.0	$^{\circ}C/W$
Operating junction temperature range	T_J	-65 to +150	$^{\circ}C$
Storage temperature range	T_{STG}	-65 to +150	$^{\circ}C$

Electrical Characteristics (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOLS	TYPE	MAX	UNITS
Maximum instantaneous forward voltage per diode at 20.0A	V_F	0.50	0.55	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	--- ---	500 100	μA mA

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

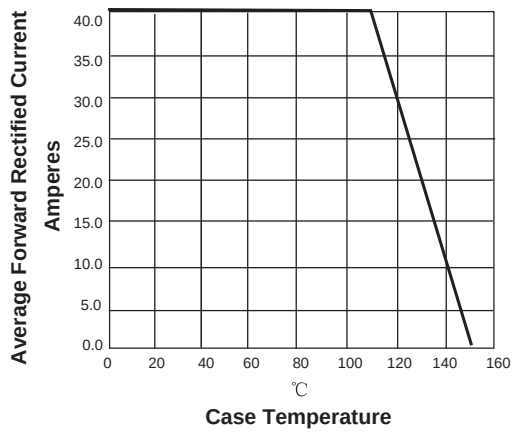


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

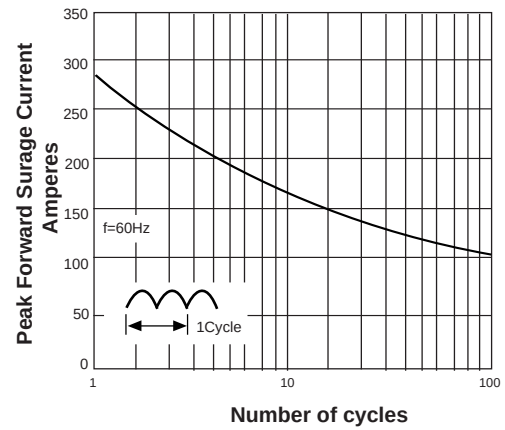


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

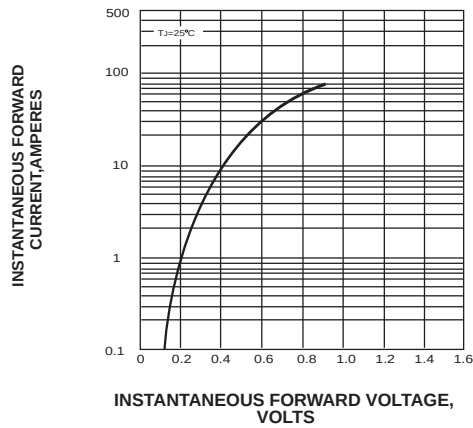
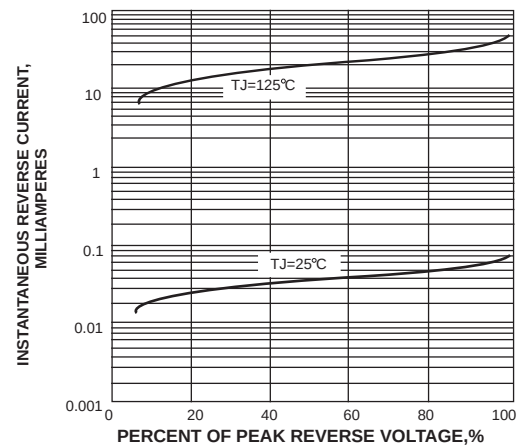
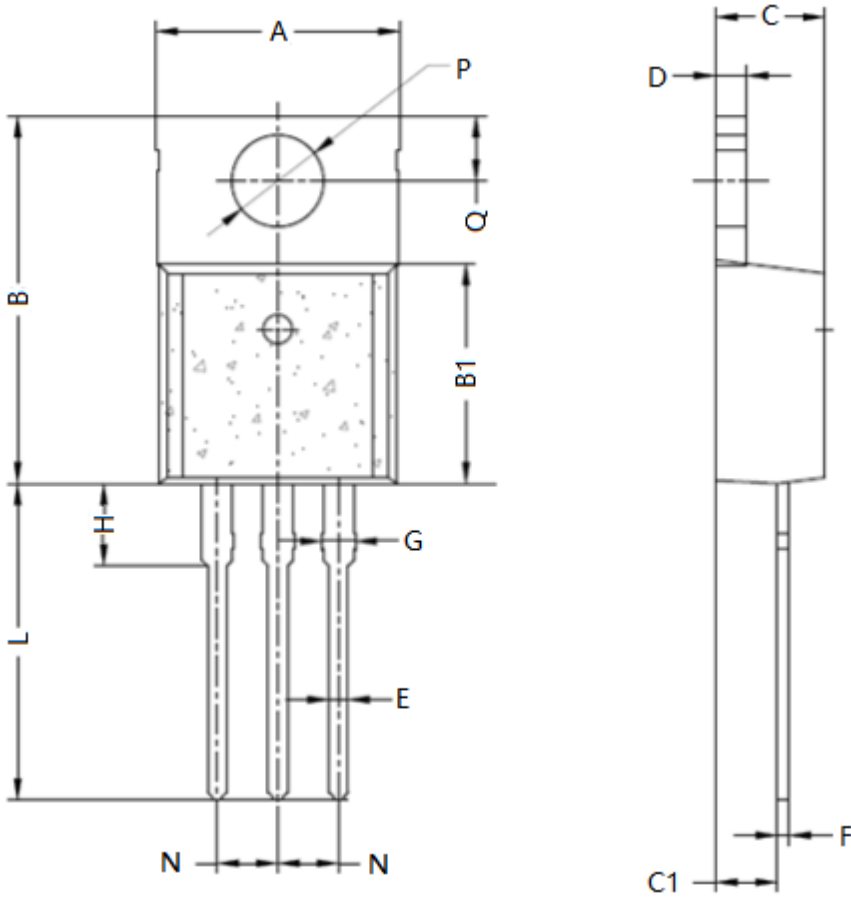


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline Dimensions



SYMBOL	unit(mm)	
	MIN.	MAX.
A	10.00	10.40
B	14.95	15.60
B1	8.50	9.60
C	4.44	4.67
C1	2.28	2.88
D	1.14	1.40
E	0.70	0.90
F	0.36	0.60
G	1.20	1.47
H	3.20	3.80
L	12.95	14.00
N	2.34	2.74
Q	2.44	3.04
P	3.70	3.94

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