

SCHOTTKY BARRIER RECTIFIER

Features

TO-220AB

- ◆ 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: 250°C, 0.25" (6.35mm) from case for 10 seconds



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	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	UNITS
Marking Code							
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	32	42	70	135	140	V
Maximum DC blocking voltage	V_{DC}	45	60	100	150	200	V
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	20.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200					A
Maximum instantaneous forward voltage at 10.0A	V_F	0.65	0.75	0.85	0.90	0.92	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=100^{\circ}C$	I_R	1.0		0.02		50.0	
		15.0	50.0				mA
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	2.0			1.5		$^{\circ}C/W$
Operating junction temperature range	T_J	-55 to +150			-55 to +175		$^{\circ}C$
storage temperature range	T_{STG}	-55 to +150			-55 to +175		$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case.

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

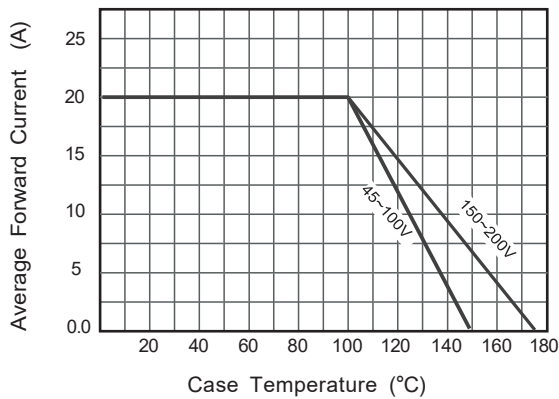


Fig.2 Typical Reverse Characteristics

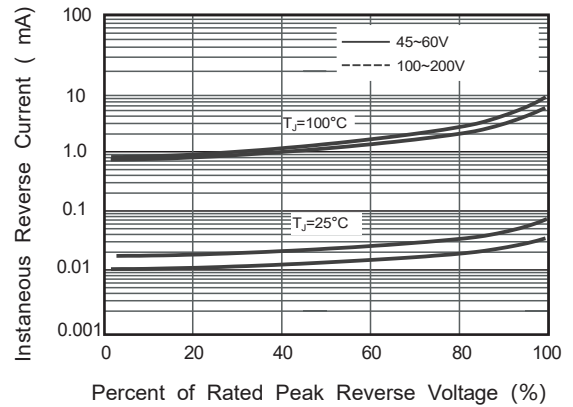


Fig.3 Typical Forward Characteristic(per leg)

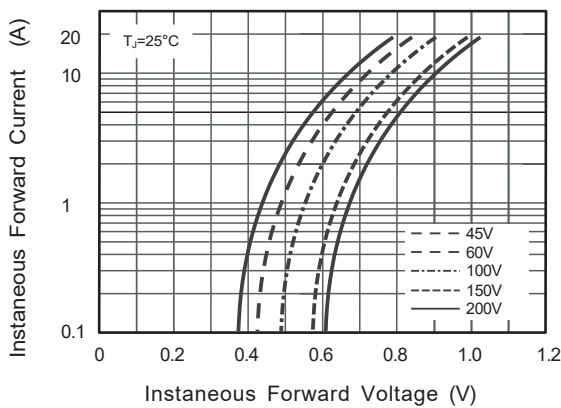
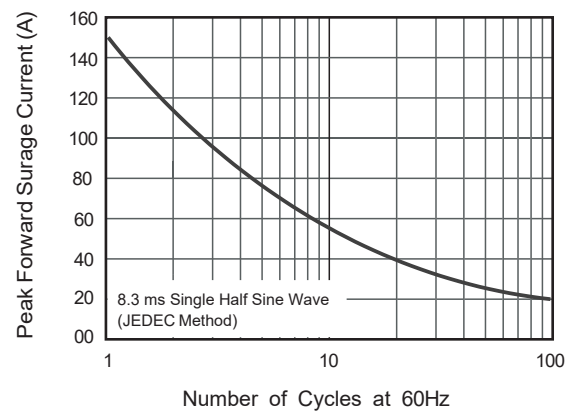


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.