

SCHOTTKY BARRIER RECTIFIER

Features

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ High surge capability
- ◆ High temperature soldering
- ◆ guaranteed Mounting position: any

TO-220AB

PIN



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	MBRF 4045CT	MBRF 4060CT	MBRF 40100CT	MBRF 40150CT	MBRF 40200CT	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)	40.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	250			200		A
Maximum instantaneous forward voltage at 20.0A	V _F	0.70	0.75	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage	I _R	0.1					mA
		20.0	30.0	10.0			
Typical thermal resistance (NOTE 2)	R _{θJC}	3.0					°C/W
Operating junction temperature range	T _J	-55 to +150					°C
storage temperature range	T _{STG}	-55 to +150					°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

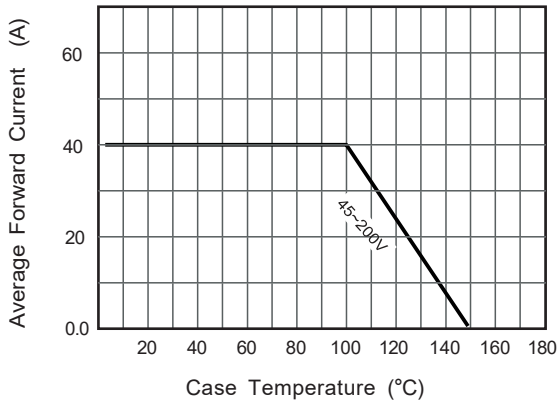


Fig.2 Typical Reverse Characteristics

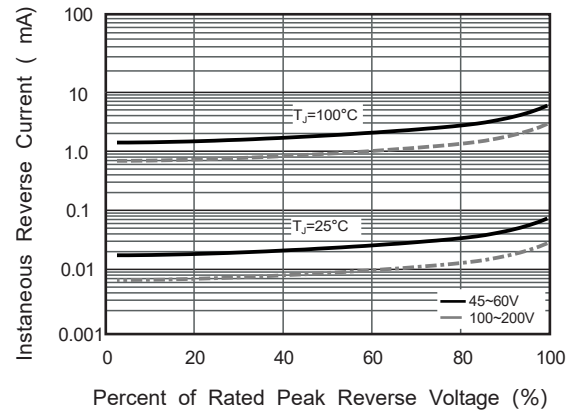


Fig.3 Typical Forward Characteristic(per leg)

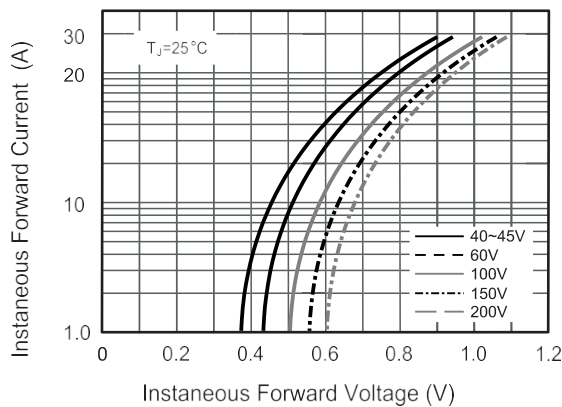


Fig.4 Typical Junction Capacitance

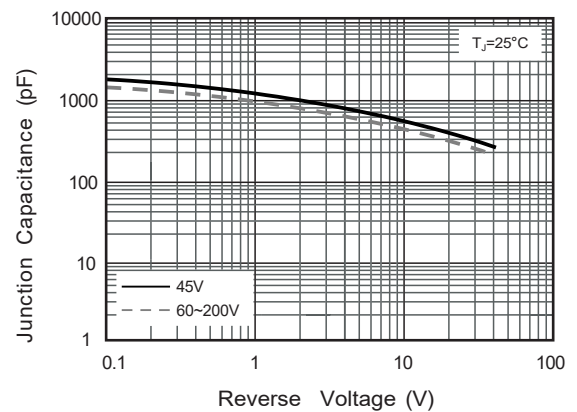


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

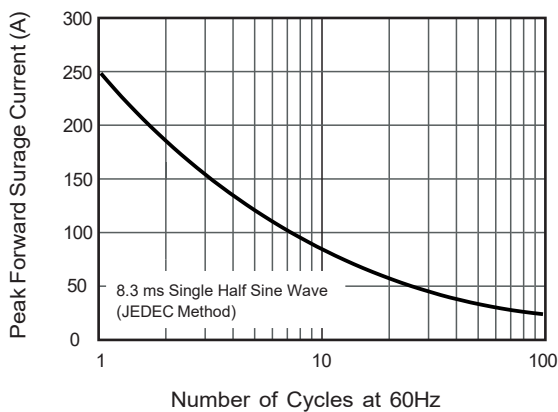
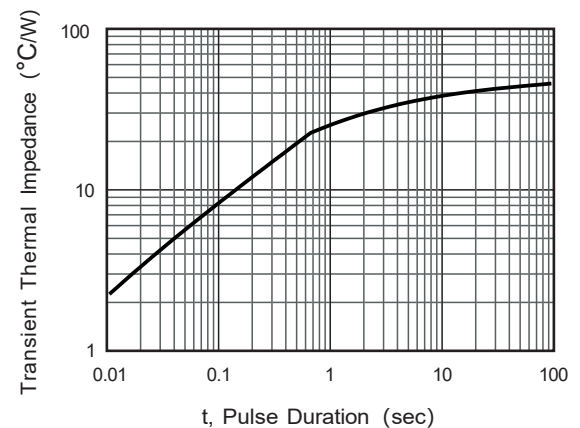


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.