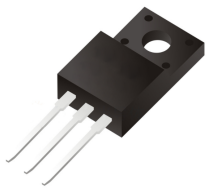
MBRF4040CT - MBRF40200CT

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 40 - 200V

CURRENT: 40A



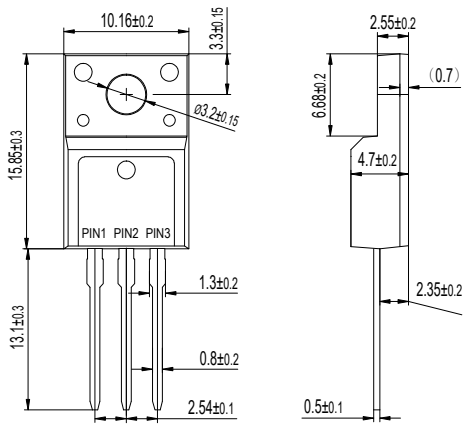
Feaures

- High efficiency operation
- Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std (Halogen Free)

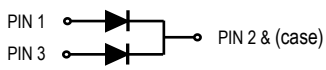
Mechanical Data

- Circuit figure: Common cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: Weight: ITO-220AB 1.70 grams

RoHS COMPLIANT



ITO-220AB



Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

RATINGS	SYMBOL	MBRF 4040CT	MBRF 4045CT	MBRF 4060CT	MBRF 40100CT	MBRF 40150CT	MBRF 40200CT	UNIT
Maximum repetitive reverse voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	70	105	140	V
Maximum DC blocking voltage	VDC	40	45	60	100	150	200	V
Maximum average forward current per device / per diode	I_{AV}	40 / 20						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	380						A
Typical thermal resistance (Note 1)	$R_{\theta-JC}$	4.5						°C/W
Operating junction temperature range	T_J	-55 to +150				-55 to +175		°C
Storage temperature range	T_{STG}	-55 to +175						°C
Maximum forward voltage per leg at I_F=20A	V_F	0.65		0.75	0.85	0.95		V
Maximum average reverse current at rated DC blocking voltage T_J=25°C / T_J=125°C	I_R	0.10 / 20			0.01 / 8			mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

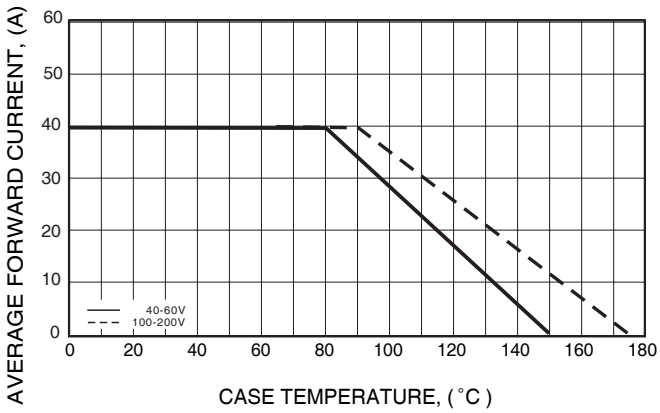


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

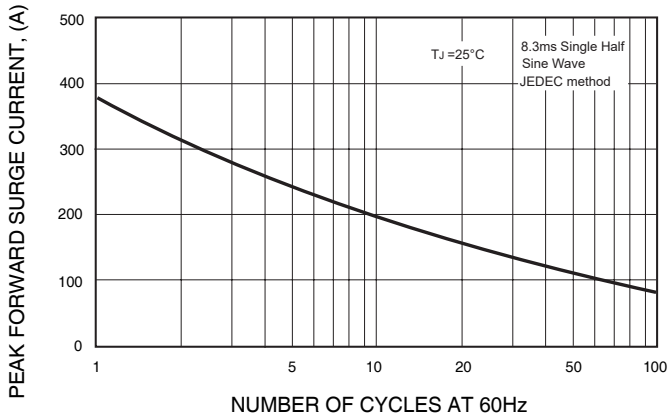


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

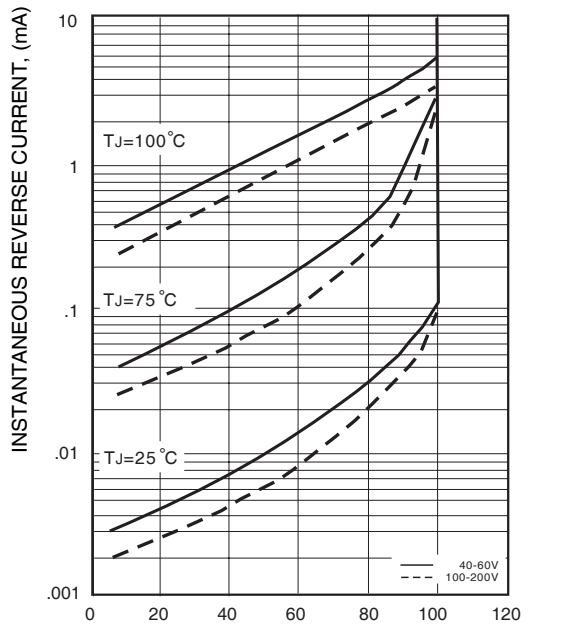


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS