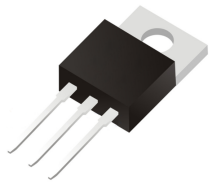
MBR10L60CT

LOW VF SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 60V

CURRENT: 10A



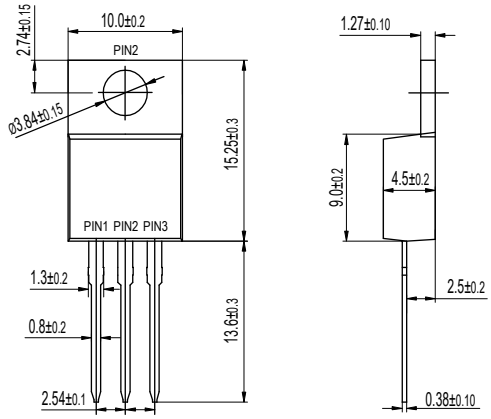
Feaures

- Ultra low vf
- High efficiencty 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

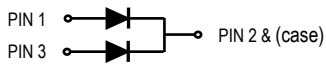
Mechanical Data

- 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: TO-220AB 1.85 grams

RoHS COMPLIANT



TO-220AB



Maximum Ratings T_A = 25°C unless otherwise specified

RATINGS	SYMBOL	MBR10L60CT	UNIT
Maximum repetitive reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Maximum average forward current per device per diode	I_{AV}	10 5	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Typical thermal resistance per diode(Note 1)	$R_{\theta JC}$	2.0	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Notes: 1. Thermal resistance from junction to case.

Electrical Characteristics T_A = 25°C unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	I_R=0.5mA		60	-	-	V
Instantaneous forward voltage per diode	V_F	I_F=5A	T_J=25ºC	-	0.54	0.60	V
		I_F=5A	T_J=125ºC	-	-	0.55	V
Reverse current per diode	I_R	V_R=60V	T_J=25ºC	-	-	150	uA
			T_J=125ºC	-	-	80	mA

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

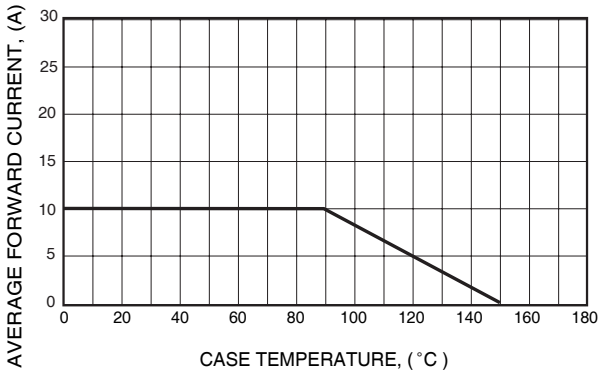


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

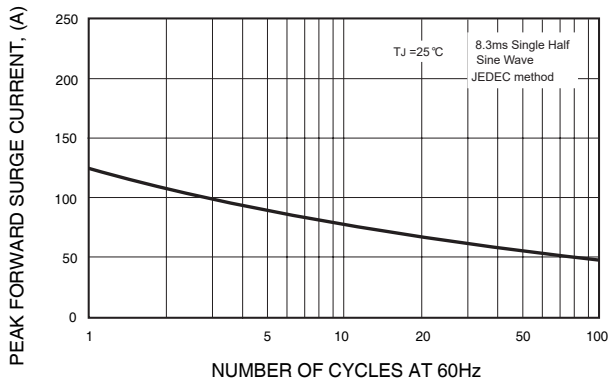


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

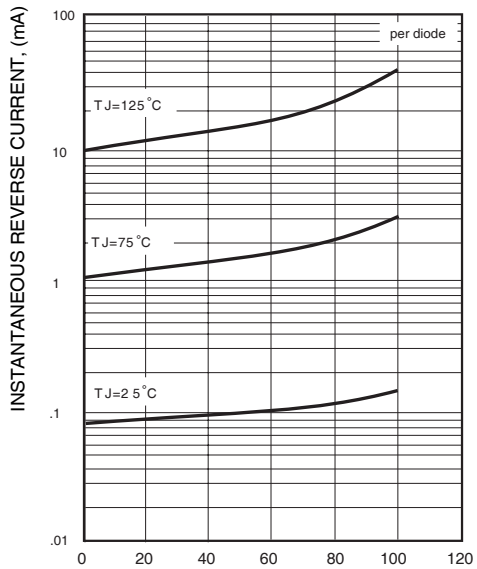


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS