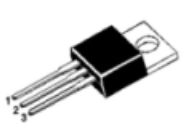
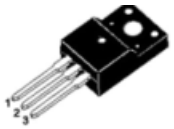
MBR30L100CTF

Schottky barrier rectifiers

Low I_R at High Temperature



TO-220AB/CT



TO-220F/FCT

TO-263/DC

TO-252/CS

Features

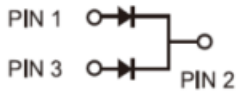
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds
- Component in accordance RoHS 2011/65/EU

Mechanical Date

Case:TO-220AB/F
Molding compound meets UL 94 V-0 flammability rating

- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** As marked
- **Mounting Position:** Any

RoHS COMPLIANT



Major Ratings and Characteristics

$I_{F(AV)}$	30A
V_{RRM}	20 V to 200 V
I_{FSM}	200A
V_F	0.40V,0.45V,0.55V,0.65V,0.75V
$T_j$max.	125°C,150°C

Maximum Ratings & Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

Items		Symbol	MBR 30L20	MBR 30L40	MBR 30L45	MBR 30L60	MBR 30L100	MBR 30L150	MBR 30L200	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	20	40	45	60	100	150	200	V
Maximum RMS voltage		V_{RMS}	14	28	31.5	42	70	105	140	V
Maximum DC blocking voltage		V_{DC}	20	40	45	60	100	150	200	V
Average forward rectified current (See Fig.1)		$I_{F(AV)}$	30.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	200.0							A
Thermal resistance from junction to case		$R_{\theta Jc}$	2.0							℃/W
Operating junction and storage temperature range		T_J ,T_{STG}	-55 to +125				-55 to +150			℃
Maximum instantaneous forward voltage at 15.0A		V_F	0.40	0.45		0.55	0.65	0.75		V
Typical junction capacitance(1)		C_J	800				350			pF
Maximum DC reverse current at rated DC blocking voltage	T_A=25℃	I_R	0.15				0.1			mA
	T_A=100℃		40.0				20.0			

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

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

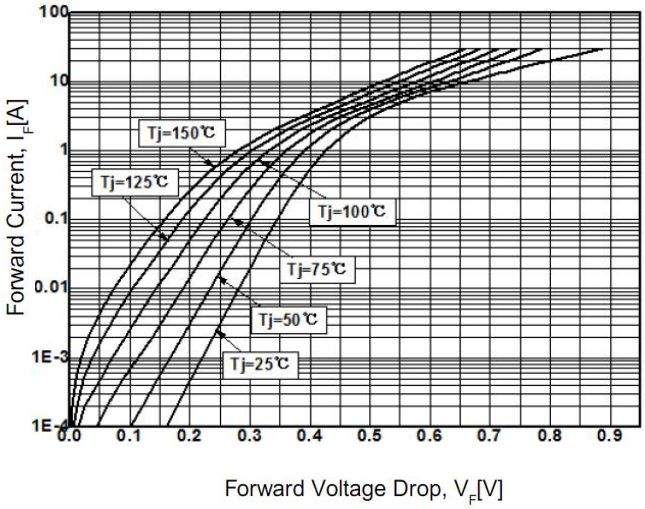


Figure 2. Reverse Leakage Current

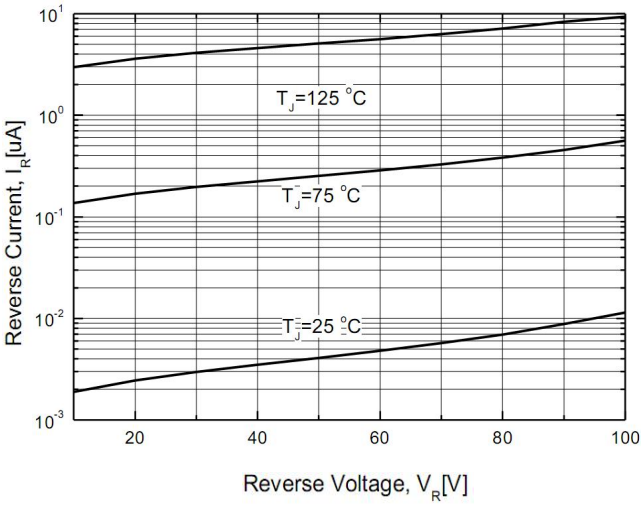


Figure 3. Junction Capacitance

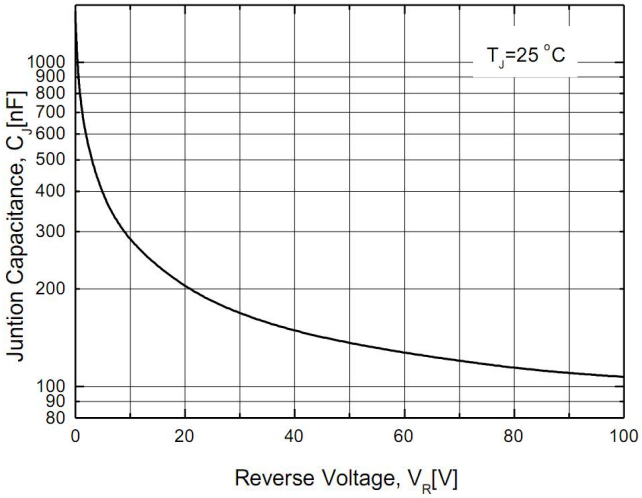
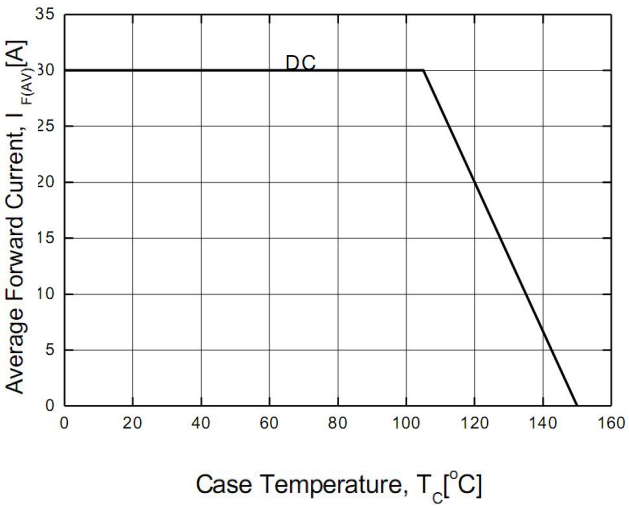
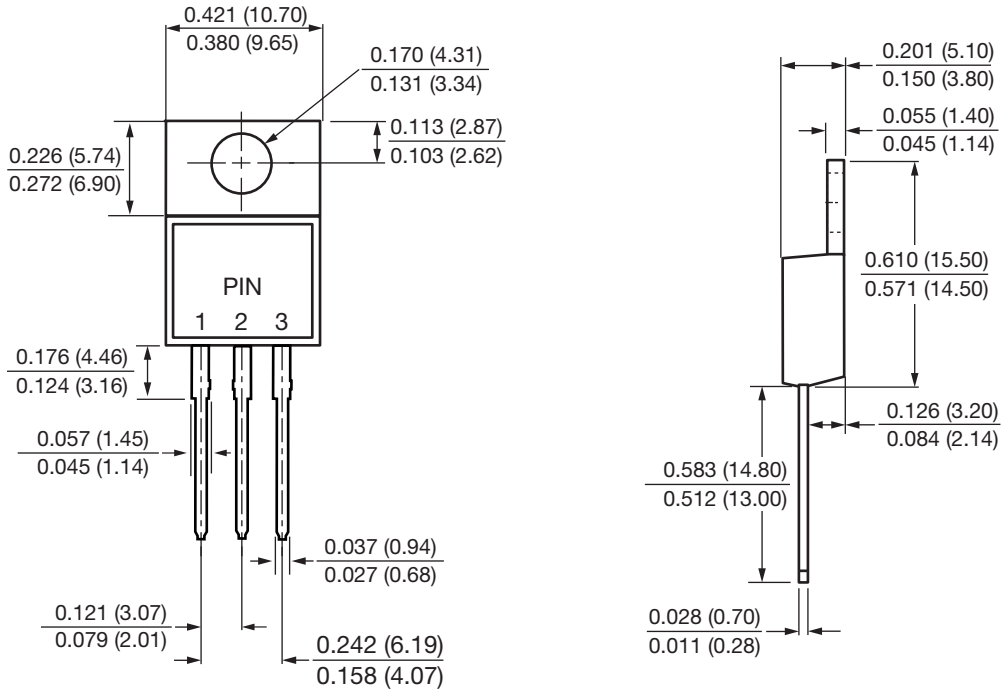


Figure 4. Power Derating



Package Outline

TO-220F



Dimensions in inches and (millimeters)