

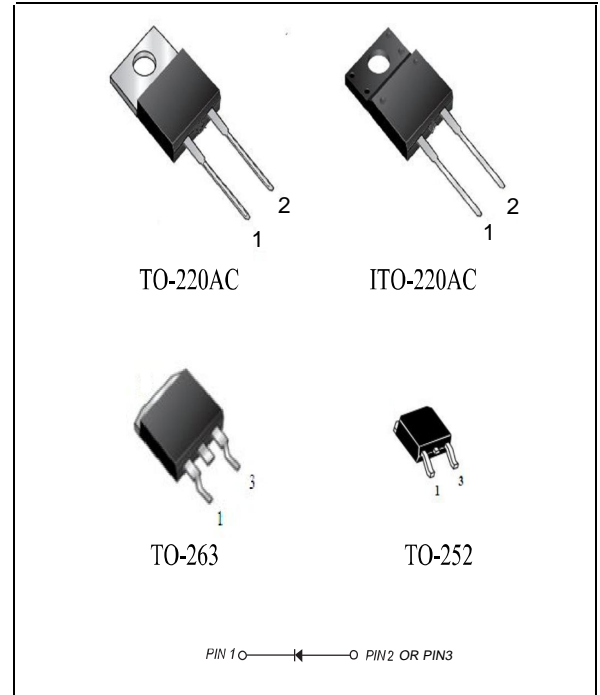
MBR720(F)~MBR7200(F) 7.5Amp Schottky Barrier Rectifiers

Features

- ◆ 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,MAX. for 10 seconds

Mechanical Data

Case : (I)TO-220AC,TO-263,TO-252 molded plastic body
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity : As marked
 Mounting Position: Any



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%.

	SYMBOLS	MBR 720(F)	MBR 740(F)	MBR 745(F)	MBR 760(F)	MBR 7100(F)	MBR 7150(F)	MBR 7200(F)	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	45	60	100	150	200	VOLTS
Maximum RMS voltage	V_{RMS}	14	28	32	42	70	105	140	VOLTS
Maximum DC blocking voltage	V_{DC}	20	40	45	60	100	150	200	VOLTS
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	7.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 7.5A	V_F	0.55	0.60	0.70	0.85	0.95		Volts	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.15			0.1		20.0		mA
Typical junction capacitance (NOTE 1)	C_J	380			140			pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	32							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +125				-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

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

2. Thermal resistance from junction to case



MBR720(F)~MBR7200(F) Ratings And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

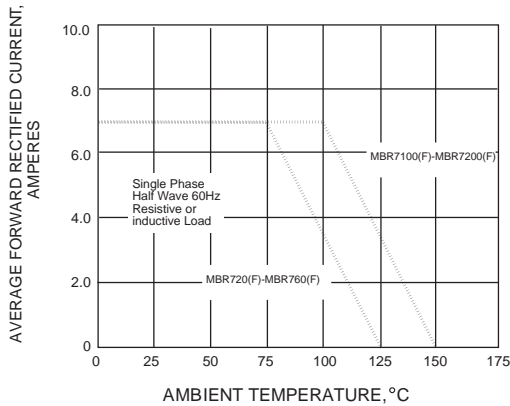


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

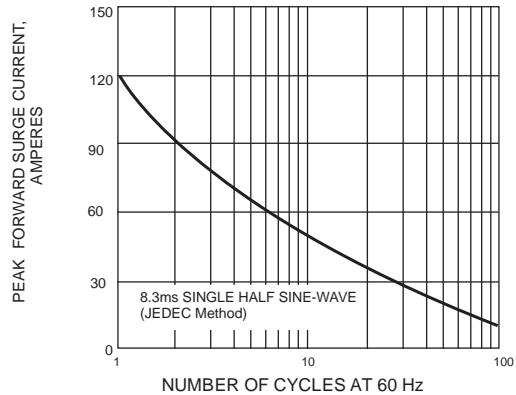


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

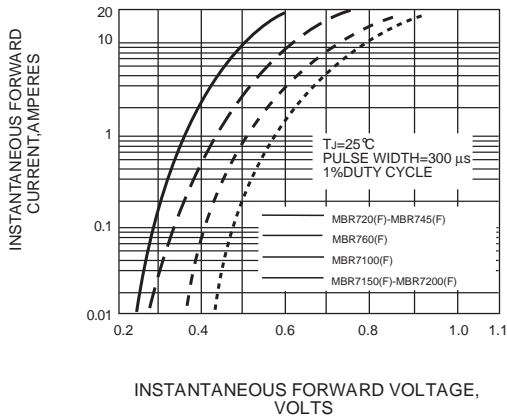


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

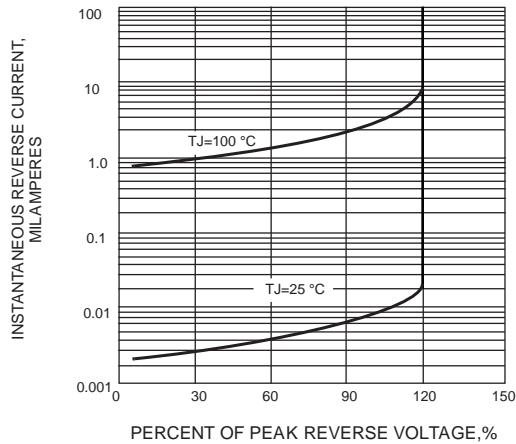


FIG. 5-TYPICAL JUNCTION CAPACITANCE

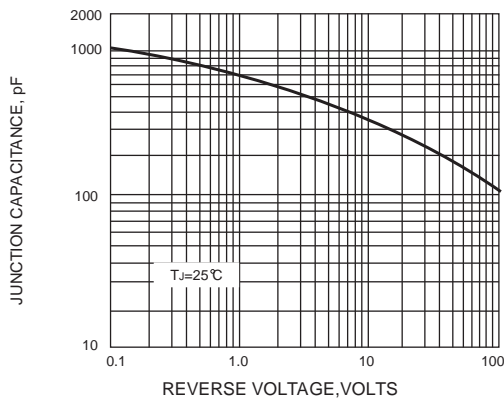
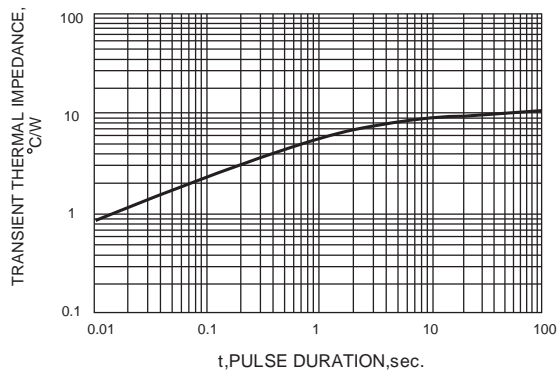
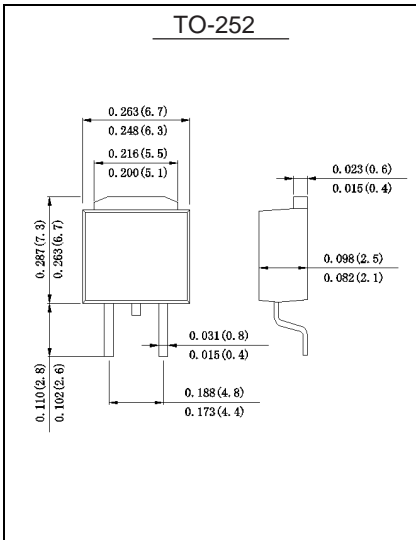
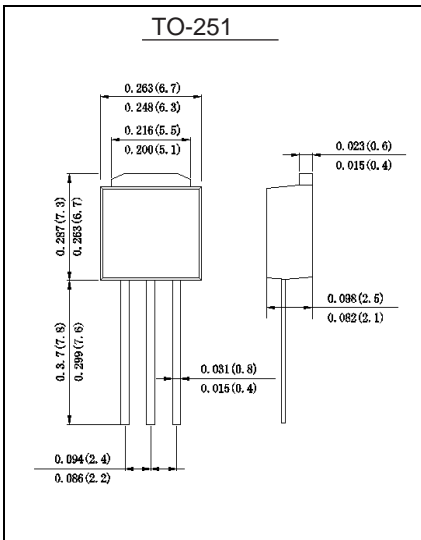
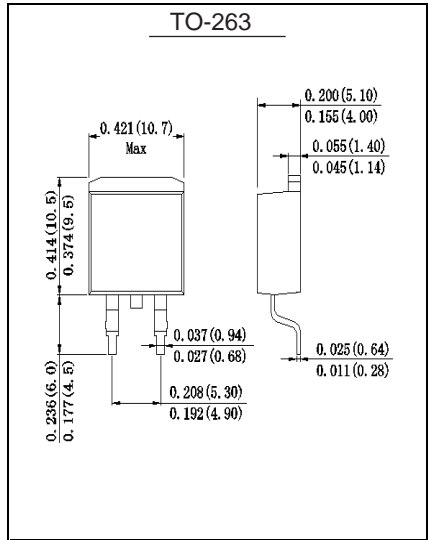
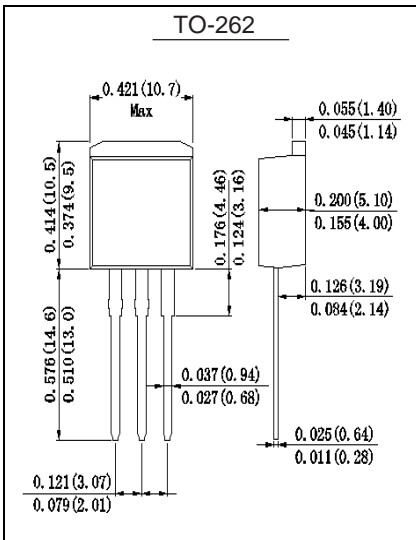
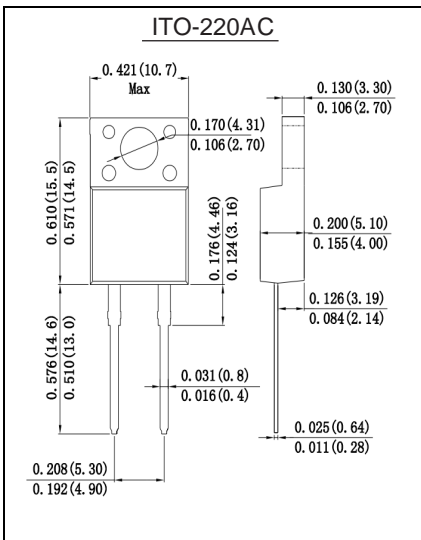
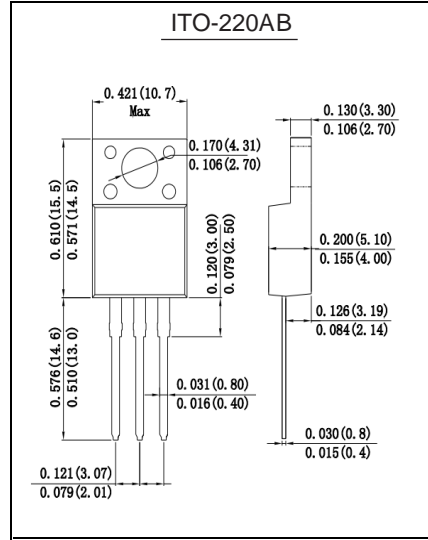
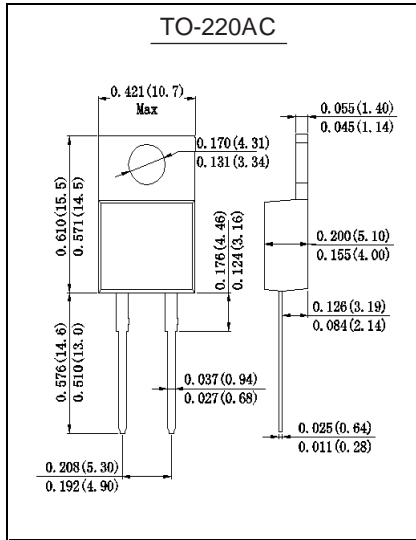
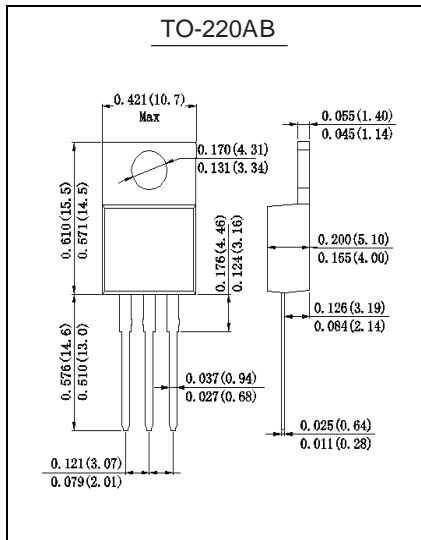


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Outline Drawing



Note: All dimensions in inches and (millimeters)