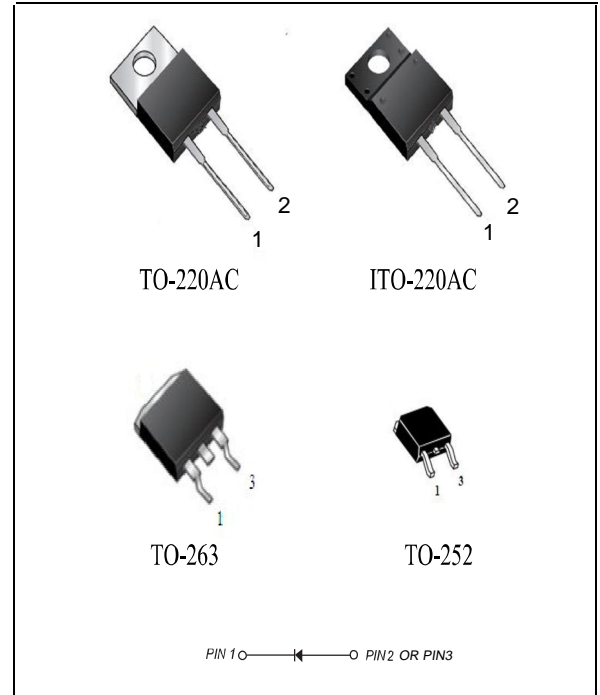


## Features

- ◆ 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 1620(F)	MBR 1640(F)	MBR 1645(F)	MBR 1660(F)	MBR 16100(F)	MBR 16150(F)	MBR 16200(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)	$I_{(AV)}$	16.0							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 16.0A	$V_F$	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)	$C_J$	650			280		pF		
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	35							$^\circ\text{C/W}$
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



# MBR1620(F)~MBR16200(F)

## Ratings And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

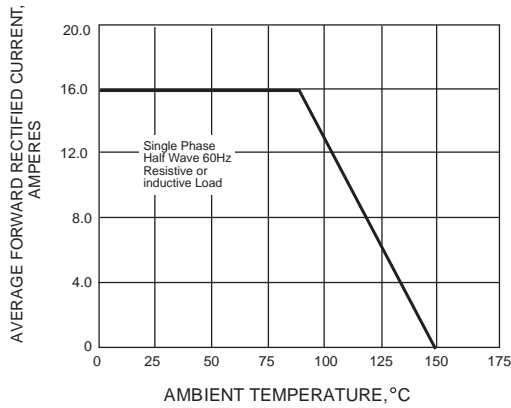


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

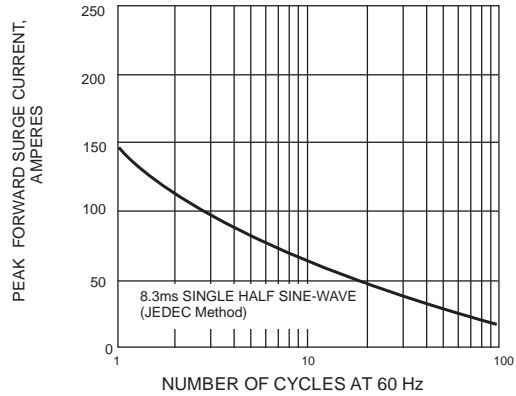


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

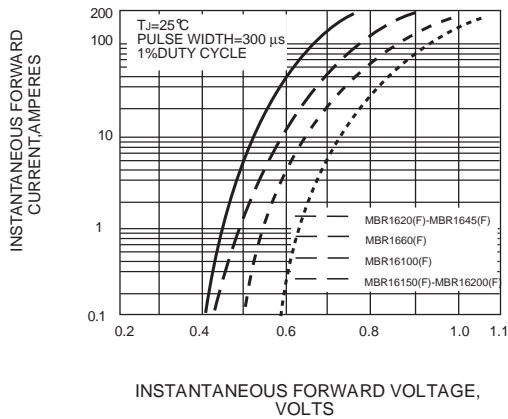
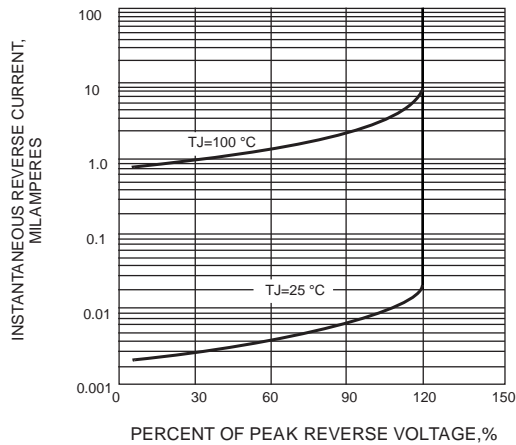
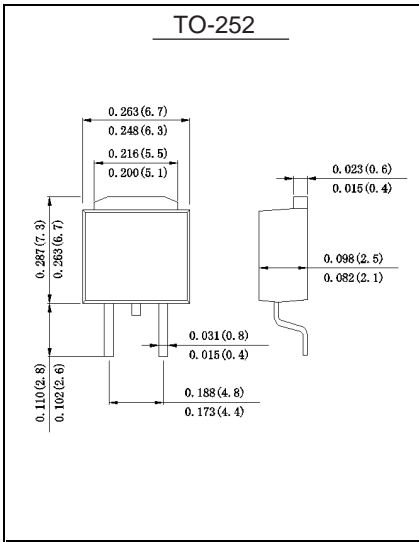
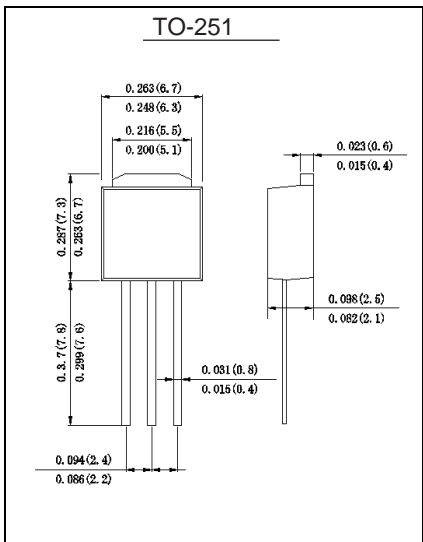
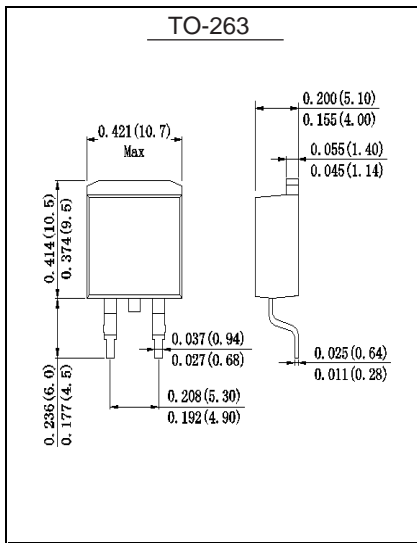
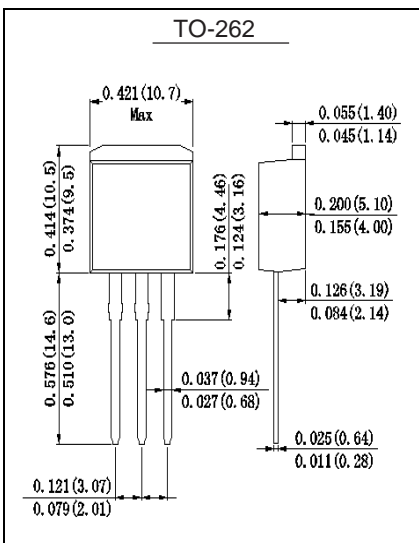
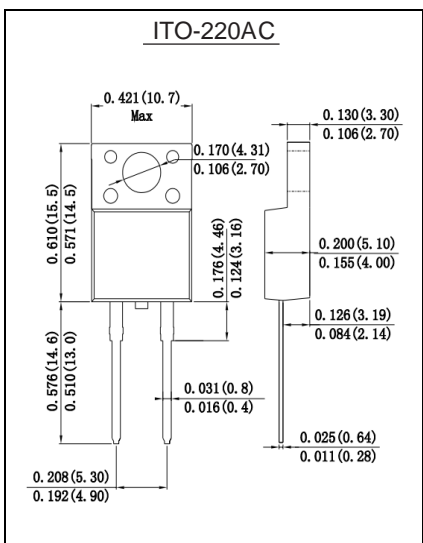
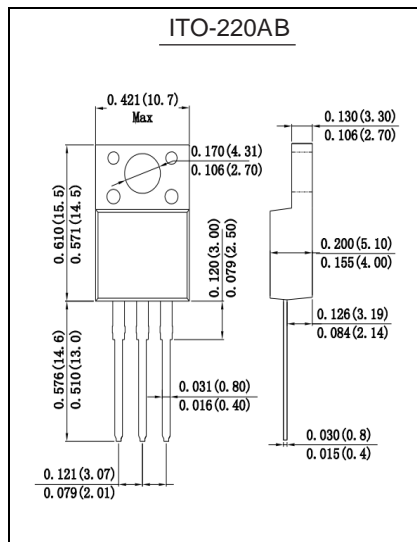
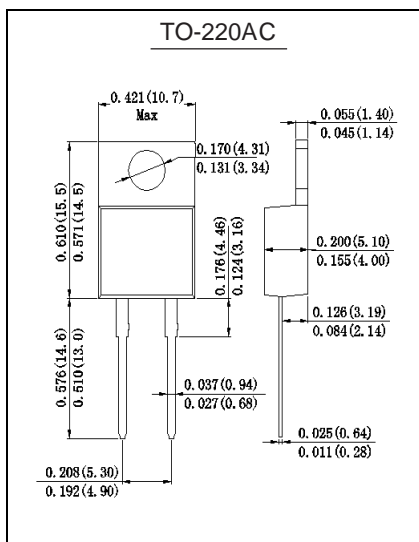
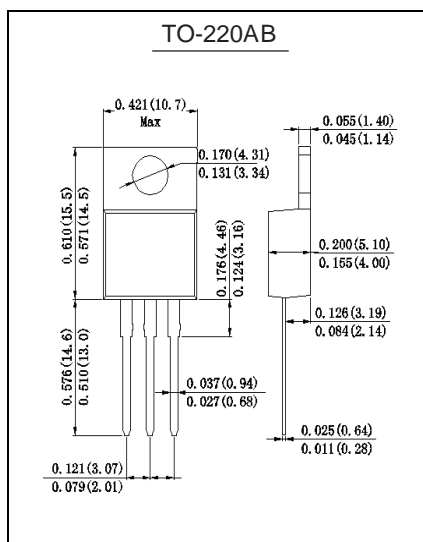


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



# Outline Drawing



Note: All dimensions in inches and (millimeters)