

MBR2020L(F)CT~MBR20200L(F)CT 20.0Amp Low VF Schottky Barrier Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low forward voltage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C,MAX. for 10 seconds

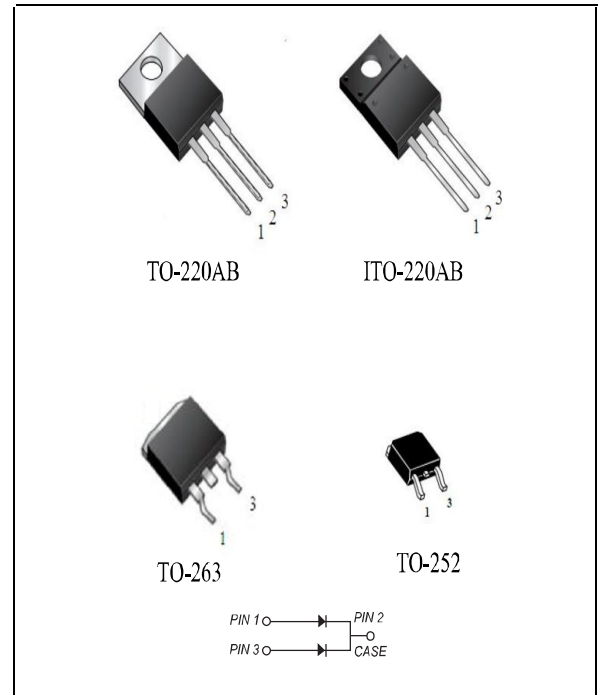
Mechanical Data

Case: (I)TO-220AB,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 2020L(F)CT	MBR 2040L(F)CT	MBR 2045L(F)CT	MBR 2060L(F)CT	MBR 20100L(F)CT	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	45	60	100	VOLTS
Maximum RMS voltage	V _{RMS}	14	28	32	42	70	VOLTS
Maximum DC blocking voltage	V _{DC}	20	40	45	60	100	VOLTS
Maximum average forward rectified current (see fig.1)	I _(AV)	20.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	175.0					Amps
Maximum instantaneous forward voltage at 10.0A	V _F	0.42			0.46	0.65	Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	1				0.5	mA
		40.0				20.0	
Typical junction capacitance (NOTE 1)	C _J	600				230	pF
Typical thermal resistance (NOTE 2)	R _{θJC}	48					°C/W
Operating junction temperature range	T _J	-55 to +125					°C
Storage temperature range	T _{STG}	-55 to +150					°C

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

2.Thermal resistance from junction to case

Ratings And Characteristic Curves

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FIG. 1- FORWARD CURRENT DERATING CURVE

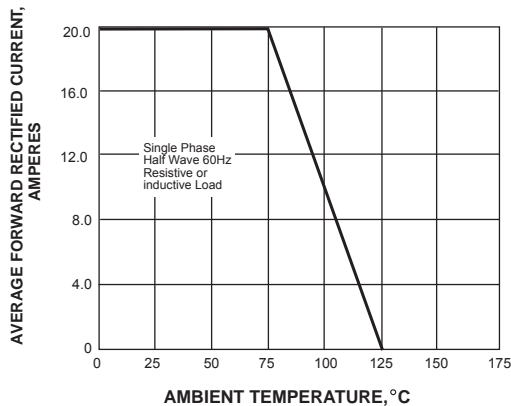


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

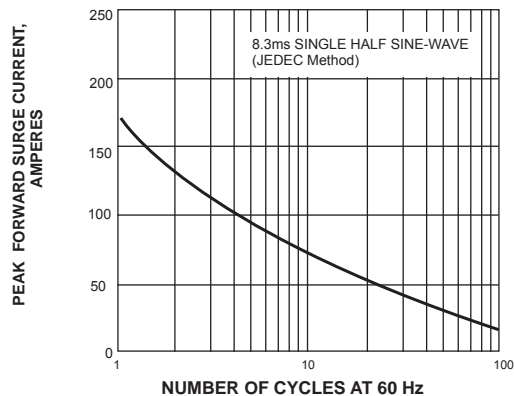


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

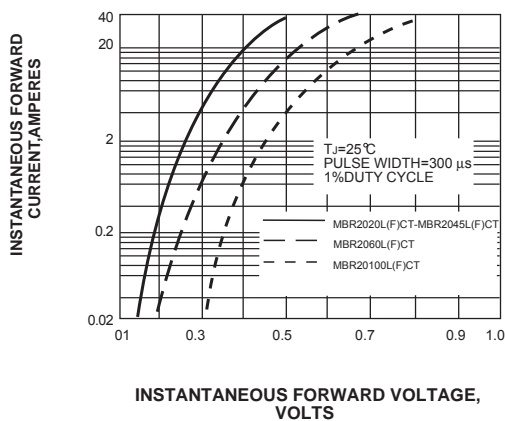
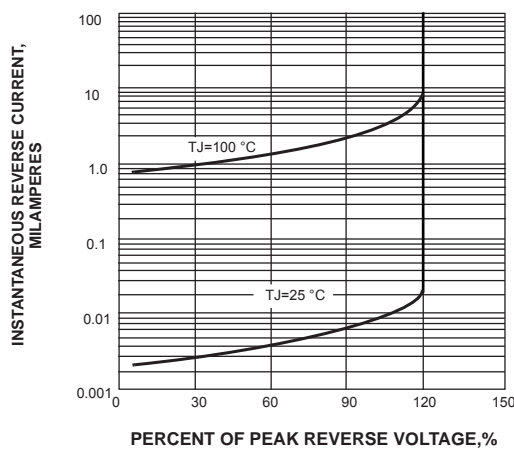
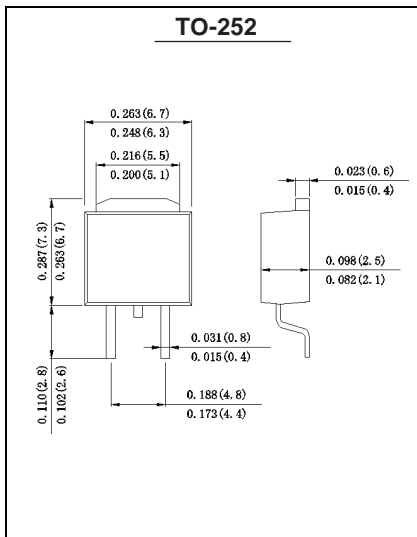
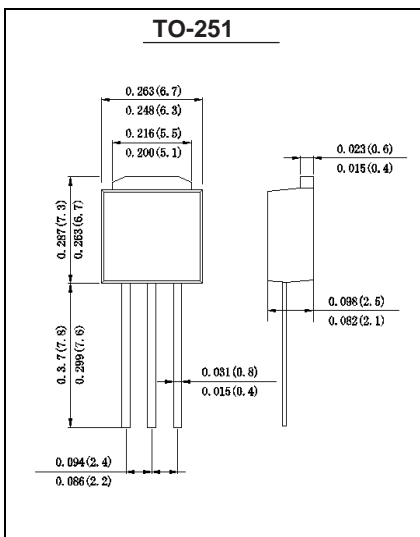
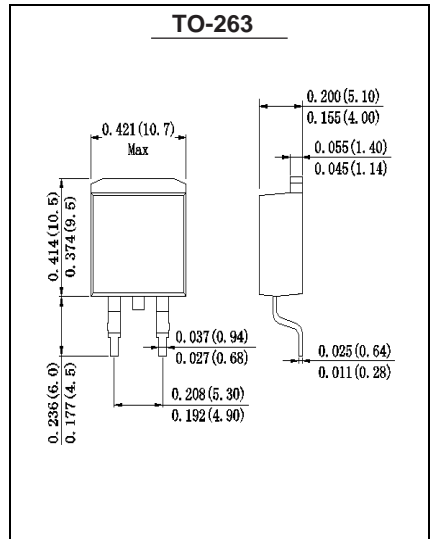
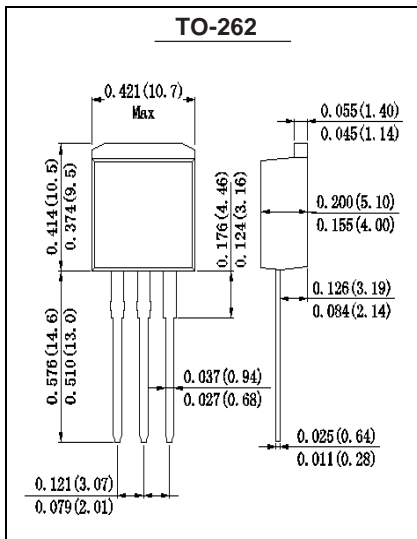
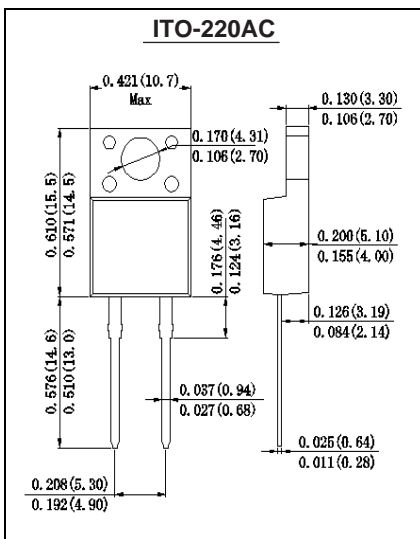
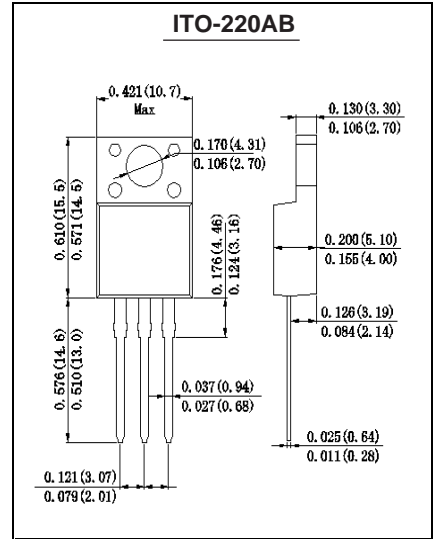
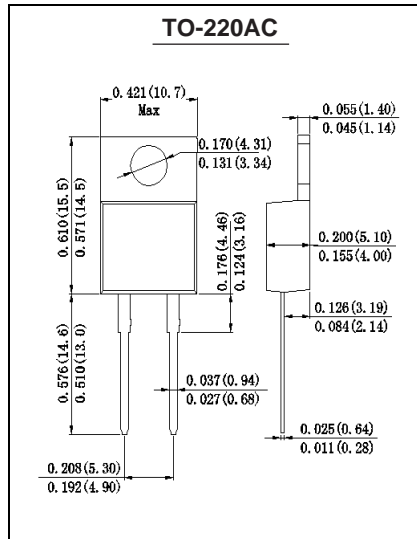
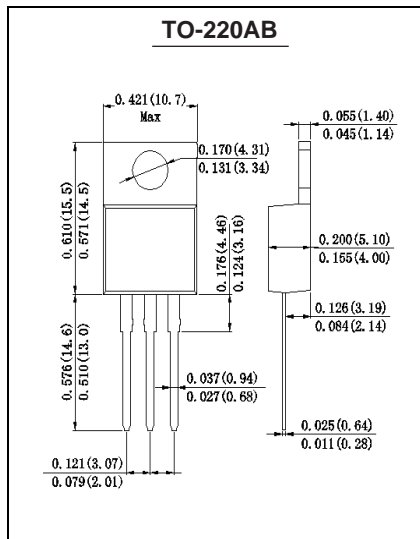


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



Outline Drawing



Note: All dimensions in inches and (millimeters)