

20A High Barrier Low VF Power Schottky Rectifiers

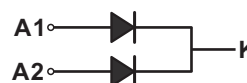
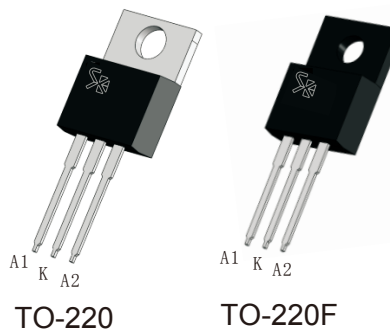
Reverse Voltage:300V

Features

- Low power loss, high efficiency
- Low forward voltage drop
- High current capability
- High surge capability
- Guardring for overvoltage protection
- Low stored charge majority carrier conduction

Mechanical data

- Case: TO-220AB
- Approx. Weight: 1.9g (0.067oz)
- Case: ITO-220AB
- Approx. Weight: 2.1g (0.07oz)
- Terminals: Lead solderable per MIL-STD-202, Method 208



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	TO-220	MBR20L300C-T	Units
	TO-220F	MBR20L300C-TF	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC blocking voltage	V_{DC}	300	V
Maximum Average Forward Rectified Current Per diode Per device	I_O	10 20	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per diode	I_{FSM}	150	A
Maximum Thermal Resistance Junction To Case(per leg) TO-220 ITO220	$R_{\theta JC}$	2 4	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=0.5mA$	300	—	—	V
Maximum forward voltage	V_F	$I_F=10A$ $T_J=25^\circ C$	—	—	0.98	V
Typical forward voltage per leg		$I_F=10A$ $T_J=125^\circ C$	—	0.78	—	
		$I_F=20A$ $T_J=25^\circ C$	—	1.10	—	
		$I_F=20A$ $T_J=125^\circ C$	—	0.86	—	
Maximum reverse current at rated V_{DC} per leg	I_R	$V_R=300V$ $T_J=25^\circ C$ $T_J=125^\circ C$	— —	— —	0.005 10	mA

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

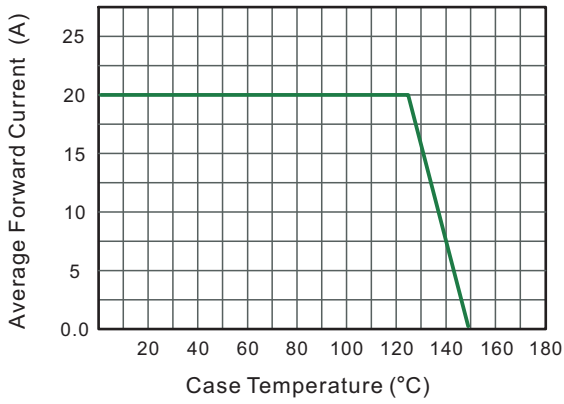


Fig.2 Typical Reverse Characteristics

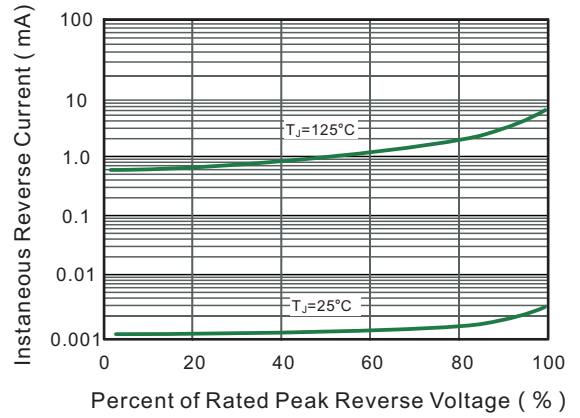


Fig.3 Typical Forward Characteristic

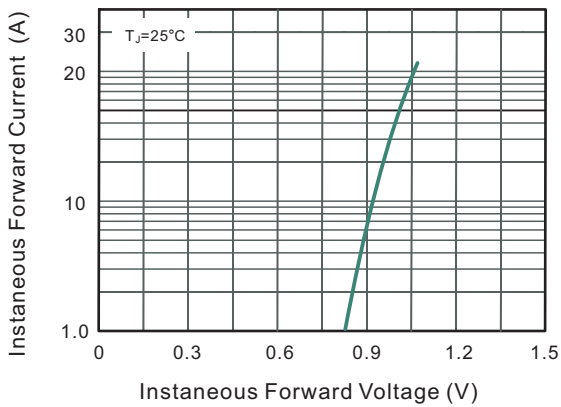
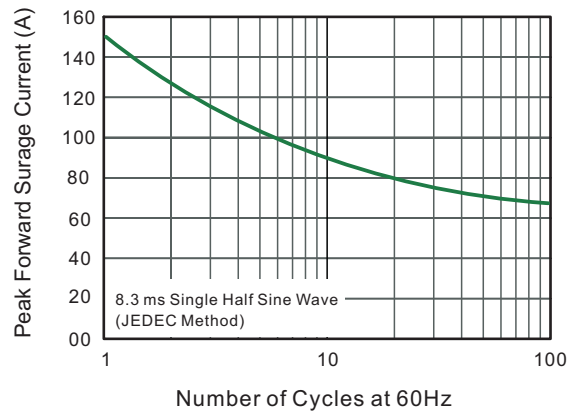


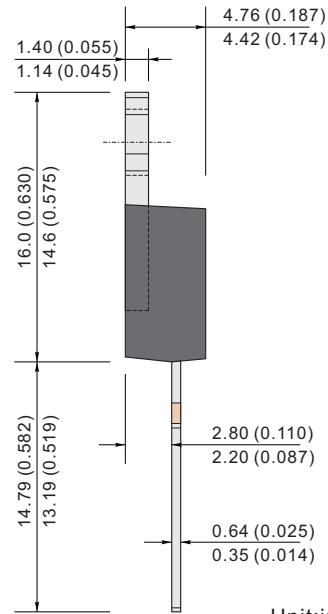
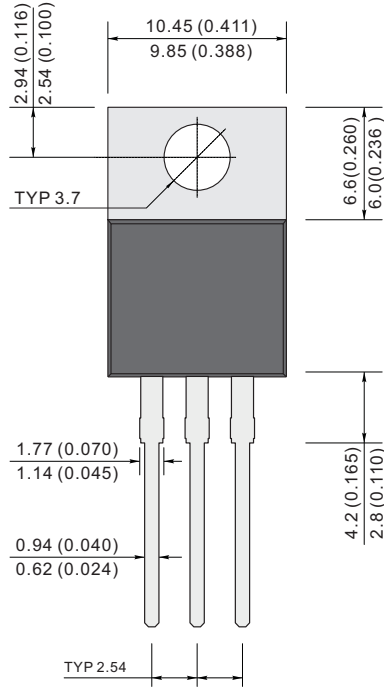
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

TO-220

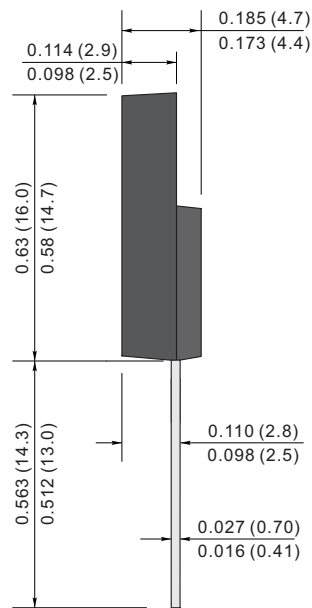
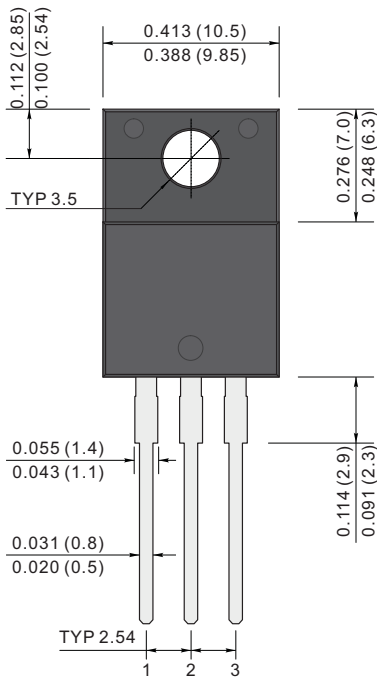


Unit:inch (mm)

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

TO-220F



Unit:inch (mm)