

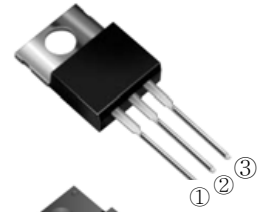
Schottky Barrier Rectifier (Low VF)

Reverse Voltage 45 Volts Forward Current 20 Amperes

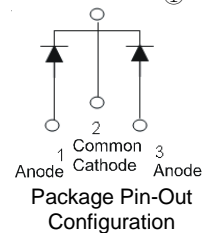
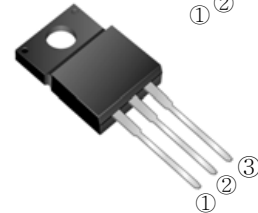
Features

- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory
Flammability Classification 94V- 0

TO- 220



TO- 220F



Mechanical Data

- Case: Epoxy, molded
- Weight: 1.9grams (approximately)
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- 50 units per plastic tube

Maximum Ratings & Electrical Characteristics

(TA=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage			V _{RRM}	45	V
Working peak reverse voltage			V _{RWM}	45	V
Maximum DC blocking voltage			V _{DC}	45	V
Maximum average forward rectified current at T _c =105°C total device per diode			I _{F(AV)}	20 10	A
Peak forward surge current 8.3ms single half sine- wave superimposed on rated load per diode			I _{FSM}	120	A
Peak repetitive reverse current per leg at t _p =2.0us , 1KHz			I _{RRM}	1.0	A
Voltage rate of change(rated V _R)			DV/dt	10000	V/us
Operating junction temperature range			T _J	- 55 to+150	°C
Storage temperature range			T _{STG}	- 55 to+150	°C
Isolation voltage (TO- 220F only) from terminal to heatsink t = 1sec			V _{AC}	2000	V
Maximum instantaneous forward voltage per leg	I _F =10A I _F =10A	T _C =25°C T _C =125°C	V _F	0.55 0.50	V
Maximum reverse current per leg at working peak Reverse voltage		T _J =25°C T _J =100°C	I _R	300 15	uA mA
Thermal Characteristics TA=25°C unless otherwise noted					
Symbol	Parameter		TYP. (TO-220)	TYP. (TO-220F)	Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg		2.0	4.0	°C /W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg		62.5	62.5	°C /W

Note: Pulse test::300us pulse width, duty cycle=2%



Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

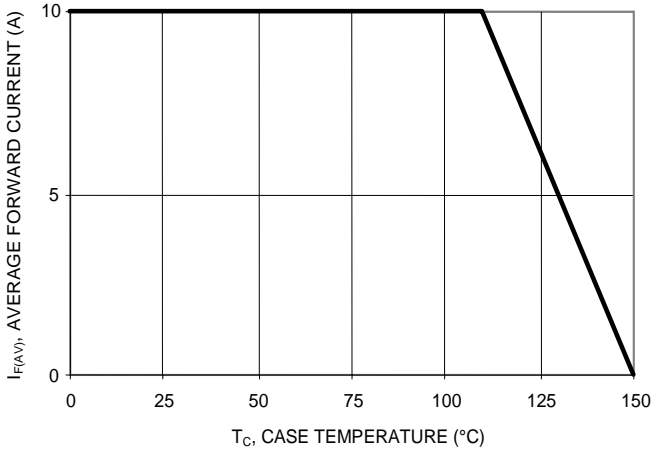


Figure 1. Current Derating Curve, Per Element

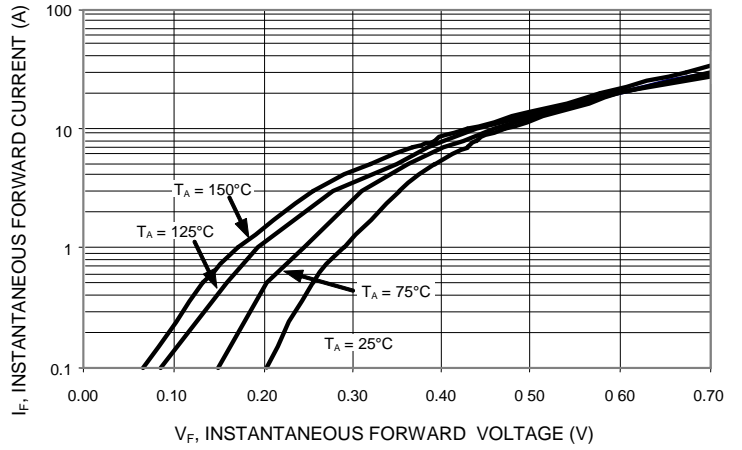


Figure 2. Typical Forward Characteristics, Per Element

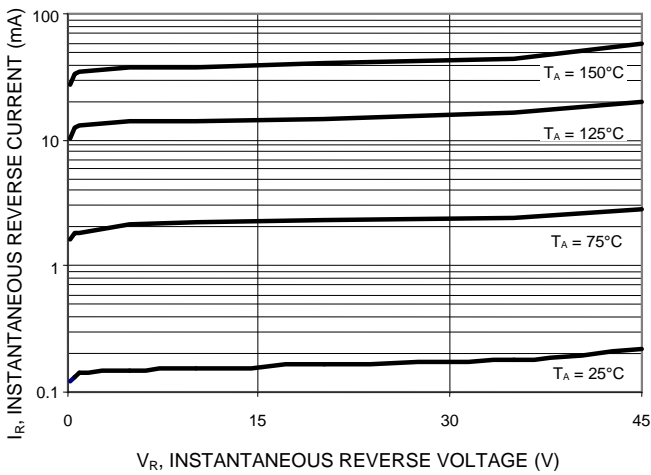


Figure 3. Typical Reverse Characteristics, Per Element

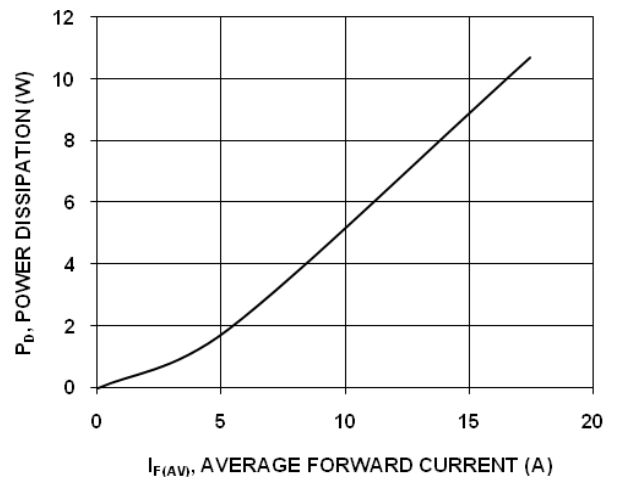


Figure 4. Forward Power Dissipation



Package Outline Dimensions

Unit: millimeters

TO-220

TO-220F

