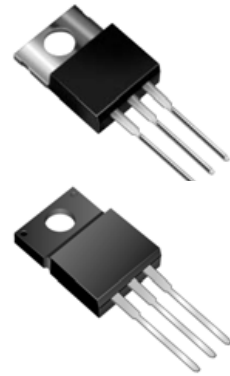


Schottky Barrier Rectifier (Low VF)

Reverse Voltage 45 Volts Forward Current 30 Amperes

Features

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



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)}	30 15	A
Peak forward surge current 8.3ms single half sine- wave superimposed on rated load per diode			I _{FSM}	200	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}	1500	V
Maximum instantaneous forward voltage per leg	I _F =15A I _F =15A	T _C =25°C T _C =125°C	V _F	0.55 0.46	V
Maximum reverse current per leg at working peak Reverse voltage		T _J =25°C T _J =100°C	I _R	200 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)

Fig. 1 – Forward Current Derating Curve

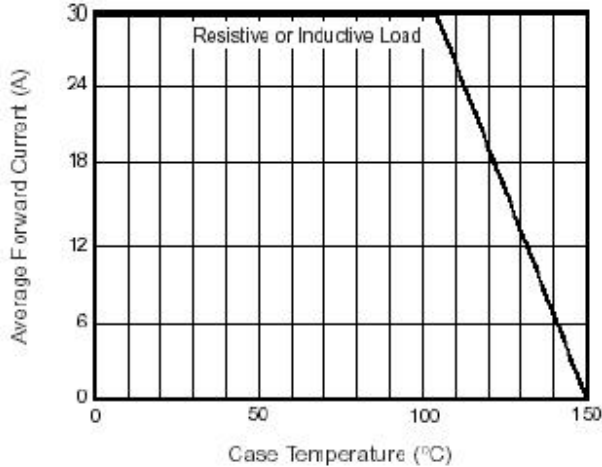


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

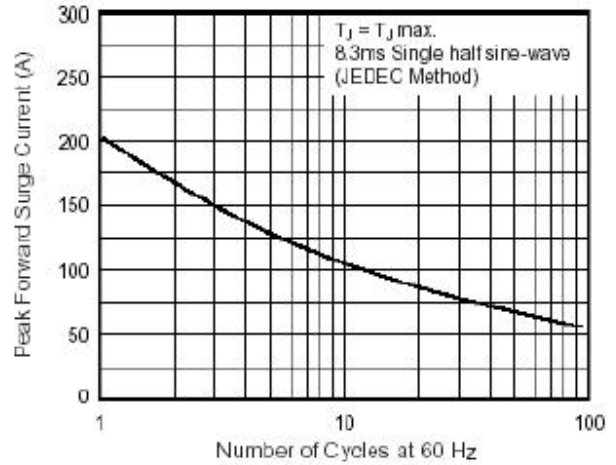


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

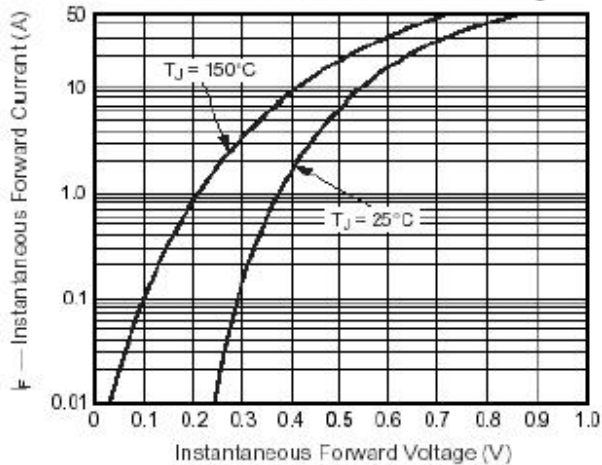


Fig. 4 – Typical Reverse Characteristics Per Leg

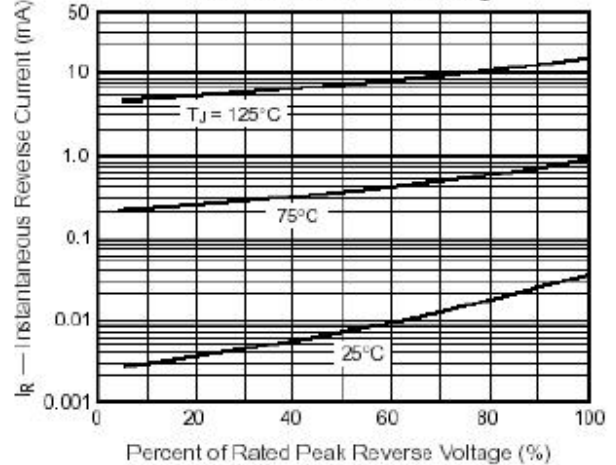


Fig. 5 – Typical Junction Capacitance Per Leg

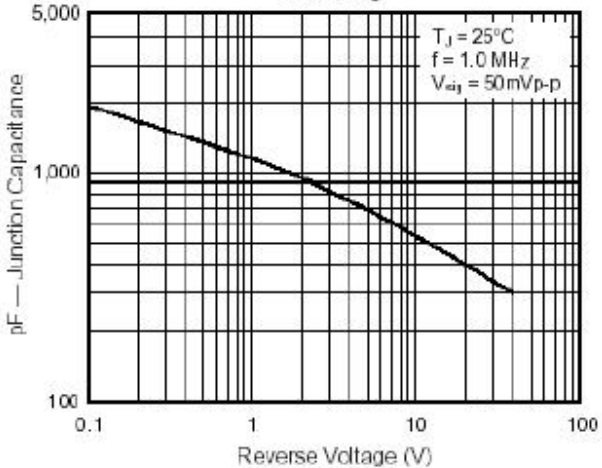
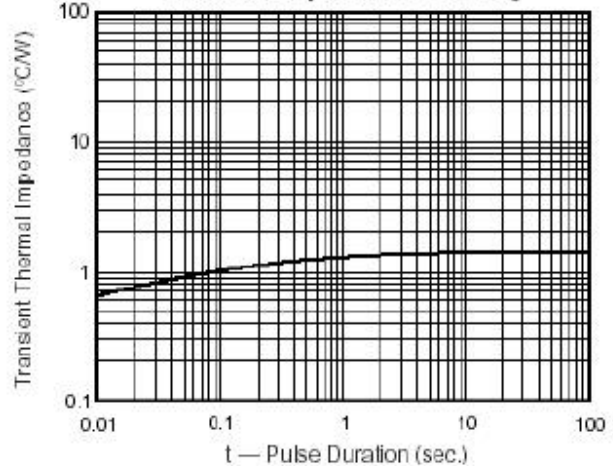


Fig. 6 – Typical Transient Thermal Impedance Per Leg





Package Outline Dimensions

Unit: millimeters

TO-220

TO-220F

