



### Trench MOS Schottky Rectifier

REVERSE VOLTAGE - 45 Volts  
FORWARD CURRENT - 20.0 Amperes

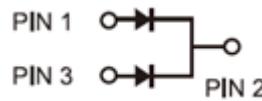
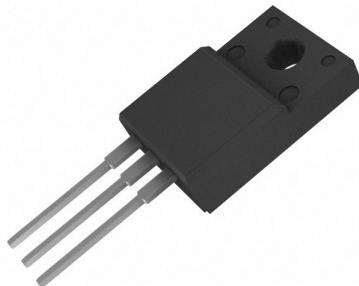
#### FEATURES

- Low power loss, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Excellent high temperature stability
- Trench MOS Schottky technology

#### MECHANICAL DATA

- Case: TO-220F
- Polarity: As marked
- Weight: Approximated 1.6 grams

TO-220F



#### 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, derate current by 20%

Characteristics	Symbol	Value		Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45		V
RMS Reverse Voltage	$V_{RMS}$	31.5		V
Forward Voltage Drop $I_F=5\text{A}$ ( $T_J=25^\circ\text{C}$ ) $I_F=5\text{A}$ ( $T_J=125^\circ\text{C}$ ) $I_F=10\text{ A}$ ( $T_J=25^\circ\text{C}$ ) $I_F=10\text{ A}$ ( $T_J=125^\circ\text{C}$ )	$V_F$	Typ. 0.43	Max. -	V
		0.33	-	
		0.48	0.54	
		0.40	0.47	
Maximum Reverse Current at Rated $V_{RRM}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	Typ. 50 12	Max. 250 50	$\mu\text{A}$ mA
Maximum Average Forward Rectified Current Total device Per diode	$I_o$	20 10		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150		A
Peak Repetitive Reverse Current at $t_p=2\ \mu\text{s}$ , 1 kHz,	$I_{RRM}$	1.0		A
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150		°C



### Rating and Characteristic Curves

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

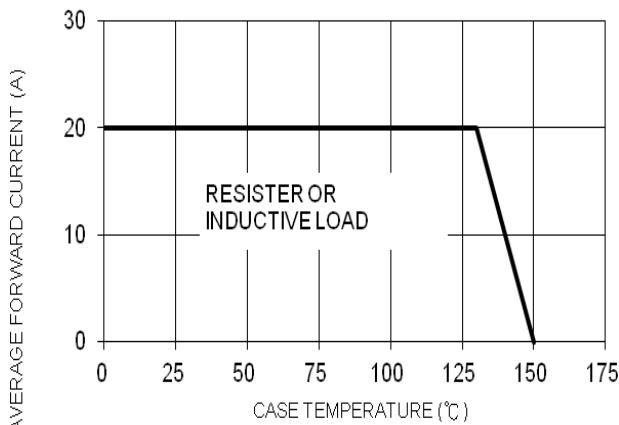


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

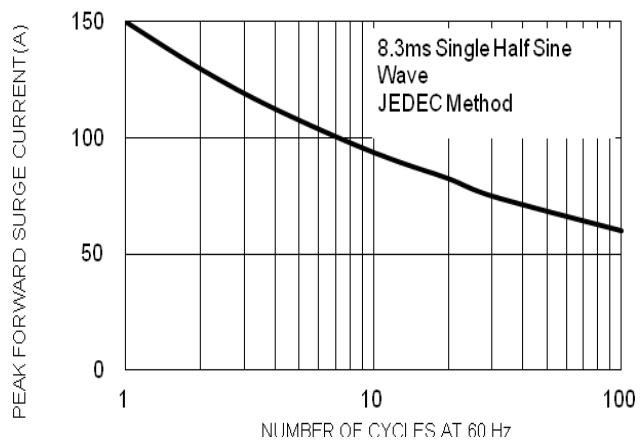


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

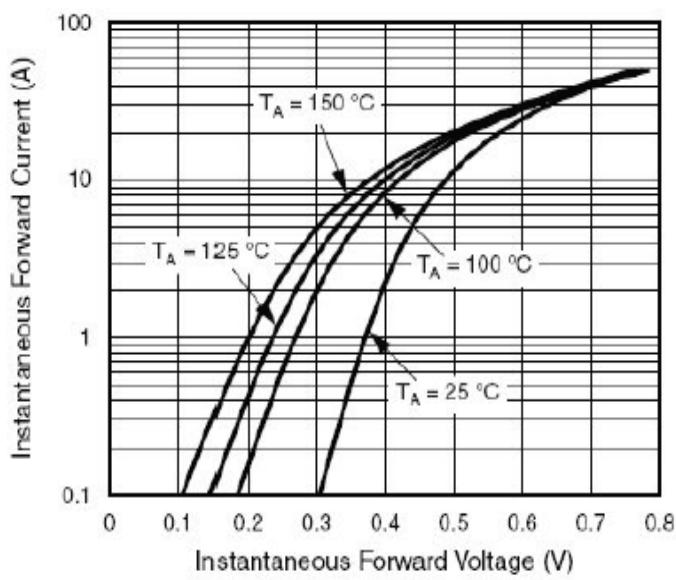


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

