

## Trench MOS Schottky Rectifier

**REVERSE VOLTAGE - 100 Volts**

**FORWARD CURRENT - 10.0 Amperes**

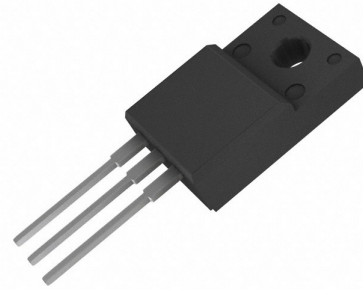
### FEATURES

- 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	$V_{RRM}$	100		V
RMS Reverse Voltage	$V_{RMS}$	70		V
Forward Voltage Drop $I_F=3A$ ( $T_J=25^\circ C$ ) $I_F=3A$ ( $T_J=125^\circ C$ ) $I_F=5A$ ( $T_J=25^\circ C$ ) $I_F=5A$ ( $T_J=125^\circ C$ )	$V_F$	Typ. 0.59 0.53 0.69 0.61	Max. - - 0.75 0.65	V
Maximum Reverse Current at Rated $V_{RRM}$ $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	Typ. 5 3	Max. 50 10	$\mu A$ mA
Maximum Average Forward Rectified Current Total device Per diode	$I_O$	10 5		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80		A
Peak Repetitive Reverse Current at $t_p=2 \mu s$ , 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

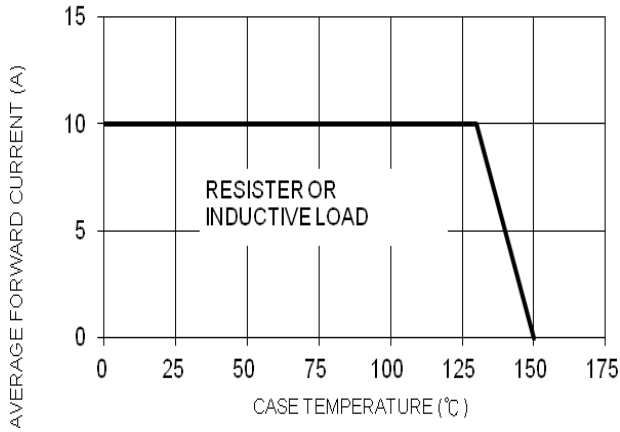


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

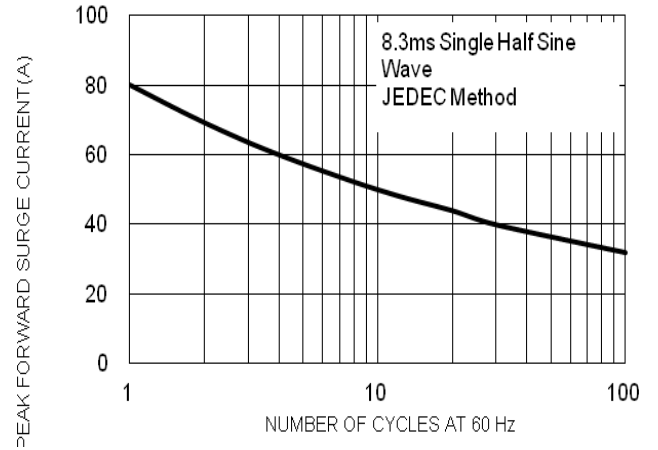


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

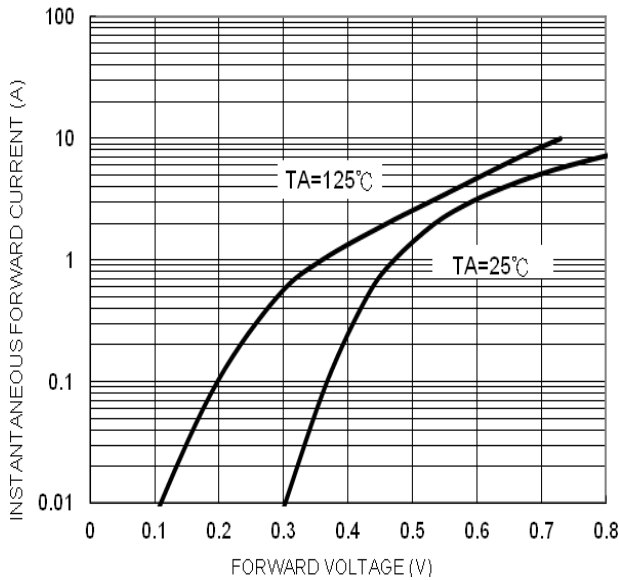


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

