1. Features

This series are state−of−the−art devices designed for use in switching power supplies, inverters and as free wheeling diodes.

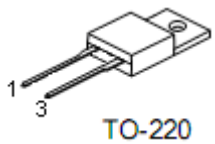
2. Features

- High efficiency, low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss.
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application

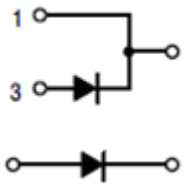
3. Mechanical Characteristics

- Case: TO-220 Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, lead free. solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 260oC/10 seconds .16”,(4.06mm) from case.
- Weight: 2.24 grams

4. Pin configuration



TO-220



Pin	Function
1	Cathode
3	Anode

5. Maximum ratings

(T_J=25°C,unless otherwise notes)

Parameter	Symbol	Rating	Units
Maximum recurrent peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	620	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward rectified current . T_C = 100ºC	$I_{(AV)}$	10.0	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125	A
Maximum instantaneous forward voltage @ 10A	V_F	1.8	V
Maximum DC reverse current @ T_A=25ºC at rated DC blocking voltage @ T_A=100ºC	I_R	10.0 400	uA uA
Maximum reverse recovery time [1)]	T_{rr}	45	nS
Typical junction capacitance [2)]	C_j	50	pF
Typical thermal resistance [3)]	$R_{\theta JC}$	3.5	ºC/W
Operating temperature range	T_J	-65 to +150	ºC
Storage temperature range	T_{STG}	-65 to +150	ºC

Notes: 1. Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 V D.C.
3. Mounted on heatsink size of 2” x 3” x 0.25” Al-plate.