

原厂直销 : 15507595280 刘先生  
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## 1. Description

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

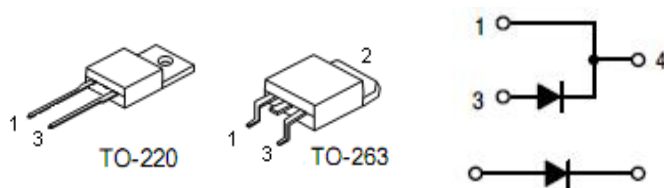
## 2. Features

- Ultrafast 25 nanosecond recovery time
- 175°C operating junction temperature
- Popular TO-220 package
- Epoxy meets UL 94 V-0 @ 0.125 in
- Low forward voltage
- Low leakage current
- High temperature glass passivated junction
- Reverse voltage to 650 V
- Pb-free packages are available

## 3. Mechanical Characteristics

- Case: epoxy, molded
- Weight: 1.9 grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal
- Leads are readily solderable
- Lead temperature for soldering purposes: 260°C max for 10 seconds

## 4. Pin configuration



Pin (TO220)	Function
1	Cathode
3	Anode

Pin(TO263)	Function
1	Cathode
2	Cathode
3	Anode

## 5. Maximum ratings

Parameter	Symbol	Rating	Units
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	650	V
Average rectified forward current Total device, (Rated VR), $T_C = 150^\circ\text{C}$	$I_{F(AV)}$	8.0	A
Peak repetitive forward current (Rated VR, square wave, 20 kHz), $T_C = 150^\circ\text{C}$	$I_{FM}$	16	A
Nonrepetitive peak surge current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	$I_{FSM}$	100	A
Operating junction temperature and storage temperature range	$T_J, T_{stg}$	-65 to +175	$^\circ\text{C}$

## 6. Thermal characteristics

Parameter	Symbol	Rating	Unit
Maximum thermal resistance, junction-to-case	$R_{\theta JC}$	2.0	$^\circ\text{C/W}$

## 7. Electrical characteristics

Parameter	Symbol	Conditions	Rating	Unit
Maximum Instantaneous Forward Voltage (Note 1)	$V_F$	$I_F=8.0\text{ A}, T_C=25^\circ\text{C}$	1.8	V
Maximum Instantaneous Reverse Current (Note 1)	$I_R$	rated DC voltage, $T_J=150^\circ\text{C}$ rated DC voltage, $T_J=25^\circ\text{C}$	500 10	$\mu\text{A}$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=1.0\text{ A}, di/dt=50\text{ A}/\mu\text{s}$ $I_F=0.5\text{ A}, I_R=1.0\text{ A}, I_{REC}=0.25\text{ A}$	30 25	ns

Note:1. Pulse test: pulse width = 300  $\mu\text{s}$ , Duty cycle  $\leq 2.0\%$ .