

1.Description

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

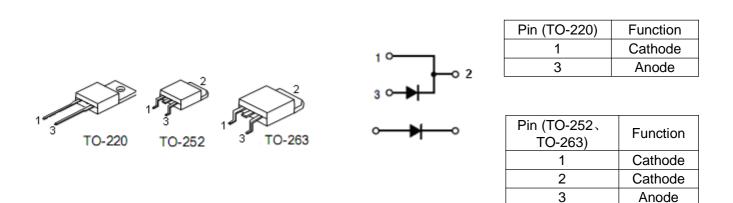
2. Features

- n Ultrafast 25 nanosecond recovery time
- n 175°C operating junction temperature
- n Epoxy meets UL 94 V-0 @ 0.125 in
- n Low forward voltage
- n Low leakage current
- n High temperature glass passivated junction
- n Reverse voltage to 700 V
- n Pb-free packages are available

3. Mechanical Characteristics

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

4. Pin configuration





5. Maximum ratings

Parameter	Symbol	Rating	Units	
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage	V _{RRM} V _{RWM} V _R	700	V	
Average rectified forward current Total device, (Rated VR), $T_c = 150^{\circ}C$	I _{F(AV)}	8.0	A	
Peak repetitive forward current (Rated VR, square wave, 20 kHz), T _c = 150°C	I _{FM}	16	А	
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	TJ,Tstg	-65 to +175	°C	

6. Thermal characteristics

Parameter	Symbol	Rating	Unit
Maximum thermal resistance, junction-to-case	R _{θJC}	2.0	°C/W

7. Electrical characteristics

Parameter	Symbol	Conditions		Rating			Unit
				Min	Тур	Max	Unit
Maximum Instantaneous Forward Voltage (Note 1)	VF	I _F =8.0A, T _C =25°C		-	1.8	2.6	V
Maximum Instantaneous Reverse Current (Note 1)	I _R	V _R =600V	T _J =150°C	-	-	500	μA
			T _J =25°C	-	-	25	
Maximum Reverse Recovery Time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{REC} =0.25A		-	-	30	ns

Note:1. Pulse test: pulse width=5ms, Duty cycle≤2.0%.