

## Fast Soft Recovery Diode

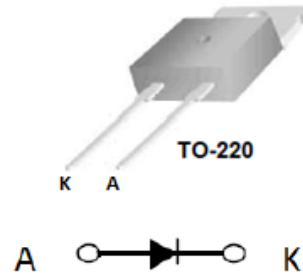
### 15A 600V trr ~ 21 ns

#### Features

Ultrafast Soft Recovery  
 175°C operating junction temperature  
 Low Forward Voltage  
 Low Leakage Current

#### Applications

Freewheeling , Clamp  
 Snubber Diode  
 Switch Mode Power Supply  
 Motor Control  
 Inverters , Converters



### Absolute Maximum Ratings T<sub>c</sub> = 25 °C unless otherwise noted

Symbol	Parameter	Values	Units
V <sub>R</sub>	Cathode – Anode voltage	600	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	15	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current@8.3ms	150	A
T <sub>J</sub>	Operating Temperature Range	175	°C
T <sub>STG</sub>	Storage Temperature	-55 to +175	°C

### Thermal characteristics

Symbol	Parameter	Values	Units
R <sub>θja</sub>	Thermal Resistance, Junction -to-ambient	60	°C/W
R <sub>θJC</sub>	Thermal Resistance, Junction-to-Case	0.9	°C/W

### Electrical Characteristics T<sub>J</sub> = 25 °C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> = 100 uA	600	--	--	V
V <sub>F</sub>	Forward voltage	I <sub>F</sub> = 15 A, T <sub>J</sub> = 25 °C	--	1.8	2.3	V
		I <sub>F</sub> = 15 A, T <sub>J</sub> = 125 °C	--	1.45	2.0	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> = V <sub>R</sub> rated	--	--	10	uA
		V <sub>R</sub> = V <sub>R</sub> rated, T <sub>J</sub> = 125 °C	--	15		uA
trr	Reverse recovery time	I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1A, I <sub>RR</sub> = 0.25A	--	23	30	ns
		I <sub>F</sub> = 1A, V <sub>R</sub> = 30V, di/dt = -200A/us	--	21	--	ns

特性曲线

