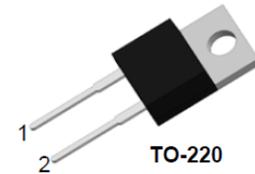


## FAST RECOVER DIODE

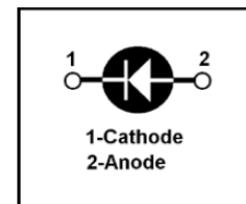
### Features

- 600V,8A
- Soft Recovery
- Operation Temperature < 150℃
- Planar Construction



### Applications

- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS



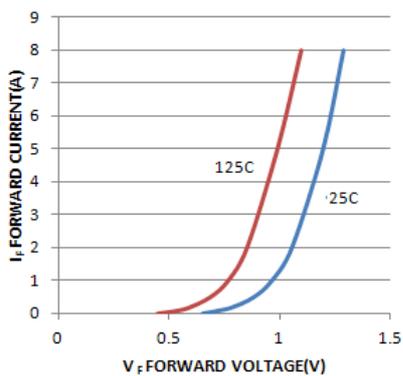
### Absolute Maximum Ratings

Symbol	Parameter	Value	Units
$V_R$	Maximum D.C. Reverse Voltage	600	V
$V_{RRM}$	Maximum Repetitive Reverse Voltage	600	V
$I_{F(AV)}$	Diode Continuous Forward Current ( $T_C=100^\circ\text{C}$ )	8	A
$I_{FRMS}$	RMS Forward Current ( $T_C=100^\circ\text{C}$ )	12	A
$I_{FSM}$	Non-Repetitive Surge Forward Current	80	A
$P_D$	Power Dissipation	42	W
$T_J$	Operating Junction Temperature Range	-55 to +175	℃
$T_{STG}$	Storage Temperature Range	-55 to +175	℃
$R_{thJC}$	Thermal Resistance	3	℃/W

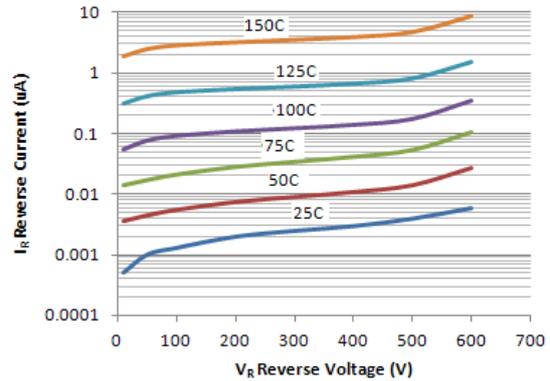
**Electrical Characteristics** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
$V_F$	Diode Forward Voltage	$I_F=8\text{A } T_C=25^\circ\text{C}$		1.3	1.7	V
	Diode Forward Voltage	$I_F=8\text{A } T_C=125^\circ\text{C}$		1.0	1.5	V
IR	Instantaneous reverse current	$V_R=600\text{V}$			10	$\mu\text{A}$
$I_{RRM}$	Diode peak Reverse Recovery Current	$I_F=1\text{A}$		1.2		A
$t_{rr}$	Diode Reverse Recovery Time	$di_F/dt=200\text{A}/\mu\text{s}$		30		ns
$Q_{RR}$	Diode Reverse Recovery Charge	$V_R=30\text{V}$		20		nC
$I_{RRM}$	Diode peak Reverse Recovery Current	$I_F=8\text{A},$		5.2		A
$t_{rr}$	Diode Reverse Recovery Time	$di_F/dt=200\text{A}/\mu\text{s}$		55		ns
$Q_{RR}$	Diode Reverse Recovery Charge	$V_R=300\text{V}$		170		nC

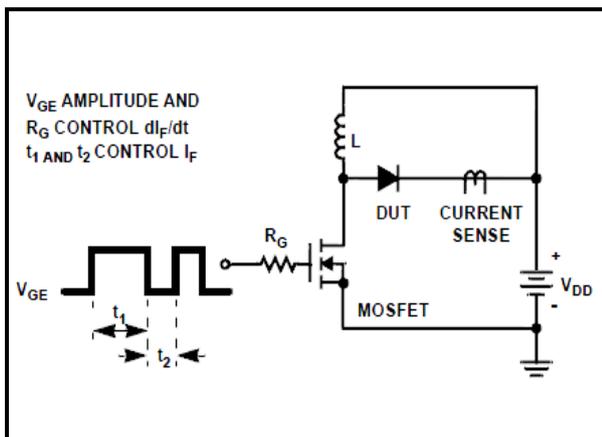
**Fig.1 Forward Current vs Forward Voltage**



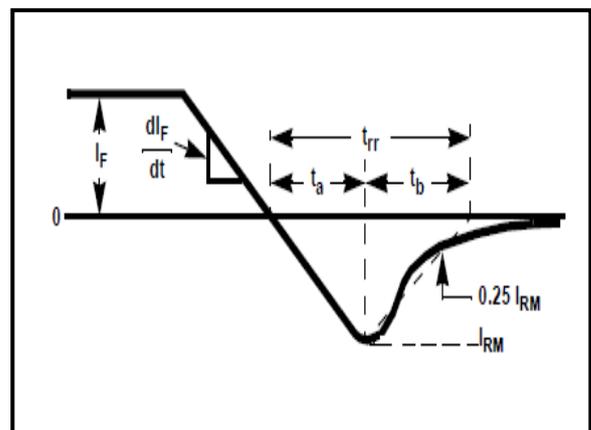
**Fig.2 Reverse Current vs Reverse Voltage**



**Fig.3 trr Test Circuit**



**Fig.4 trr Waveforms and Definitions**



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