

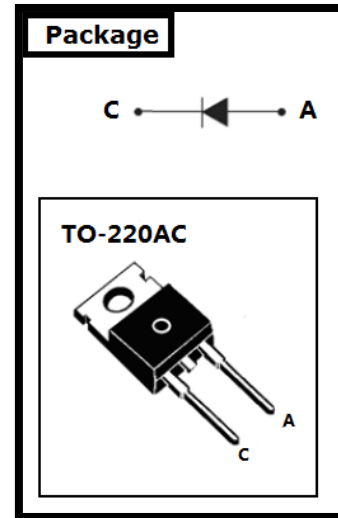
FAST RECOVER DIODE

Features

- 1200V,8A
- Soft Recovery
- Operation Temperature < 175℃
- Planar Construction

Applications

- Switching Power Supplies
- Power Switching Circuits
- General Purpose



Absolute Maximum Ratings

Symbol	Parameter	Value	Units
V_{RRM}	Peak Repetitive Reverse Voltage	1200	V
$I_{F(AV)}$	Diode Continuous Forward Current ($T_C=100\text{ }^\circ\text{C}$)	8	A
I_{FRM}	Repetitive Peak Surge Current (20kHz Square Wave)	15	A
T_J	Operating Junction Temperature Range	-55 to +175	℃
T_{STG}	Storage Temperature Range	-55 to +175	℃

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V_F	Diode Forward Voltage	$I_F=8\text{A } T_C=25^\circ\text{C}$		1.6	2.0	V
	Diode Forward Voltage	$I_F=8\text{A } T_C=125^\circ\text{C}$		1.8	2.3	V
IR	Instantaneous reverse current	$V_R=1200\text{V}$			10	μA
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=0.8\text{A}$		0.7		A
t_{rr}	Diode Reverse Recovery Time	$di_F/dt=200\text{A}/\mu\text{s}$		39		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=30\text{V}$		57		nC
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=8\text{A},$		7.5		A
t_{rr}	Diode Reverse Recovery Time	$di_F/dt=200\text{A}/\mu\text{s}$		86		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=100\text{V}$		350		nC

Fig.1 Forward Current vs Forward Voltage

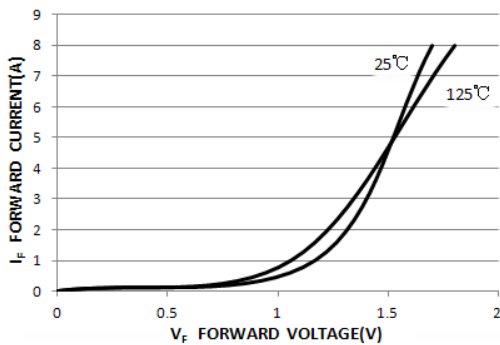


Fig.2 Reverse Current vs Reverse Voltage

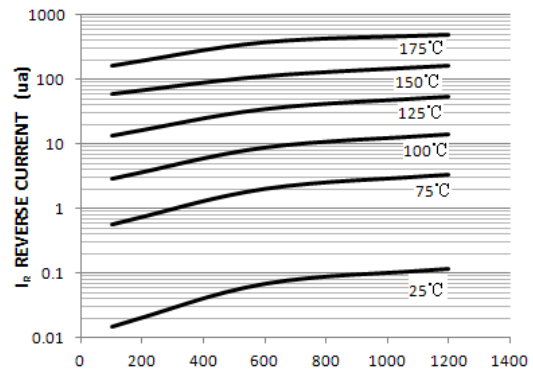


Fig.3 trr Test Circuit

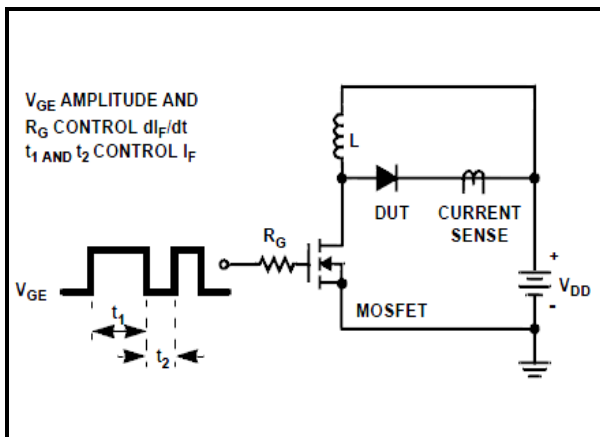
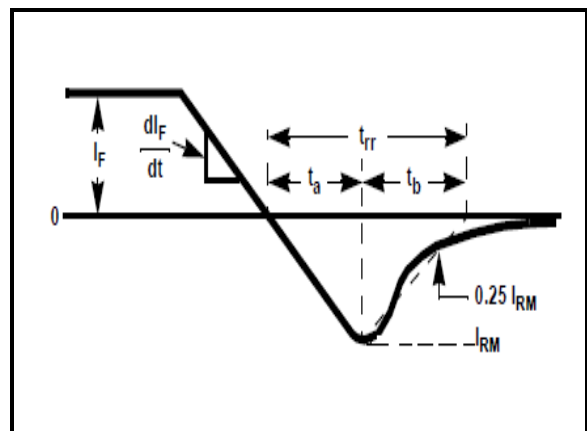


Fig.4 trr Waveforms and Definitions



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