

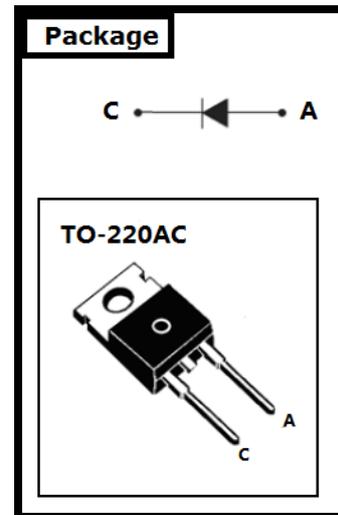
FAST RECOVER DIODE

Features

- 1200V,20A
- 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 ($T_C=100\text{ }^\circ\text{C}$)	20	A
I_{FRM}	Repetitive Peak Surge Current (20kHz Square Wave)	45	A
T_J	Operating Junction Temperature Range	-55 to +175	°C
T_{STG}	Storage Temperature Range	-55 to +175	°C

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V_F	Diode Forward Voltage	$I_F=20\text{A } T_C=25^\circ\text{C}$		2.7	3	V
	Diode Forward Voltage	$I_F=20\text{A } T_C=125^\circ\text{C}$		2.3	2.8	V
IR	Instantaneous reverse current	$V_R=1200\text{V}$			10	μA
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=2\text{A}$		1.3		A
t_{rr}	Diode Reverse Recovery Time	$dI_F/dt=200\text{A}/\mu\text{s}$		42		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=30\text{V}$		63		nC
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=20\text{A},$		6.2		A
t_{rr}	Diode Reverse Recovery Time	$dI_F/dt=200\text{A}/\mu\text{s}$		65		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=100\text{V}$		217		nC

Fig.1 Forward Current vs Forward Voltage

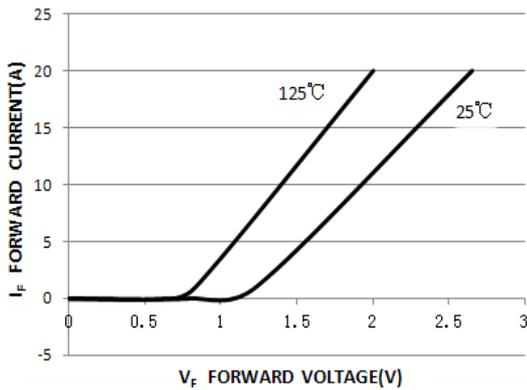


Fig.2 Reverse Current vs Reverse Voltage

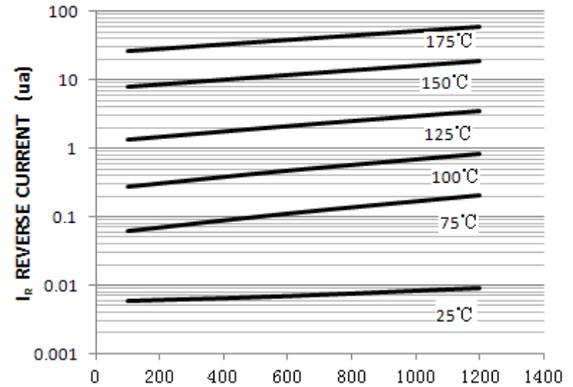


Fig.3 trr Test Circuit

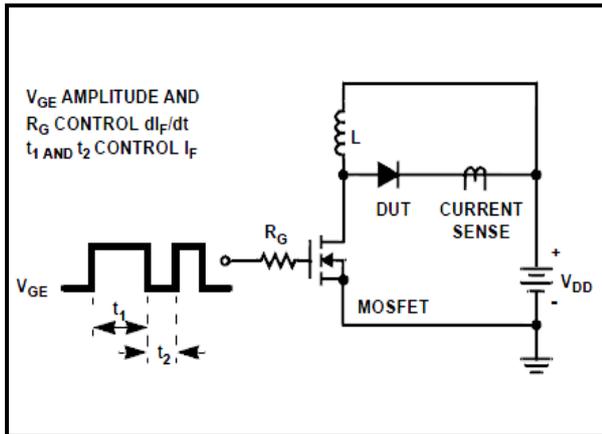
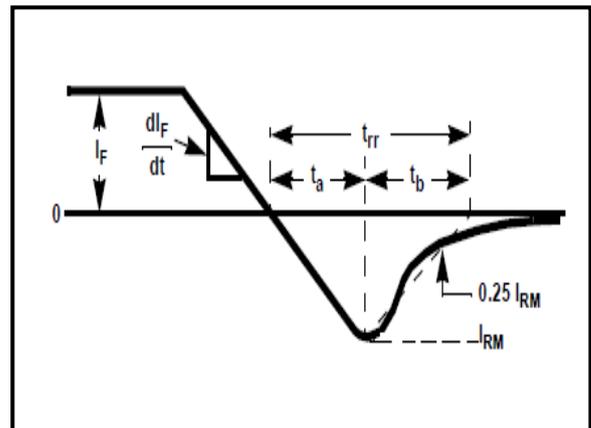


Fig.4 trr Waveforms and Definitions



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