

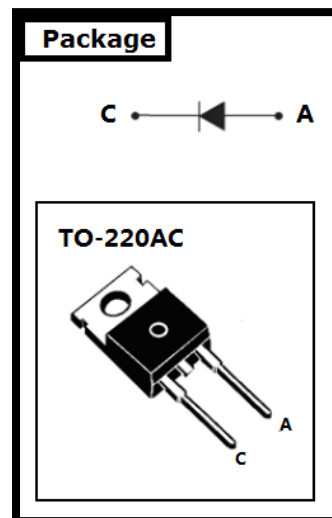
FAST RECOVER DIODE

Features

- 1200V,15A
- Soft Recovery
- Operation Temperature <175°C
- 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 ($T_C=100^\circ\text{C}$)	15	A
I_{FRM}	Repetitive Peak Surge Current (20kHz Square Wave)	30	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	$I_F=15\text{A } T_C=25^\circ\text{C}$		2.6	3	V
	Diode Forward Voltage	$I_F=15\text{A } T_C=125^\circ\text{C}$		2.3	2.8	V
IR	Instantaneous reverse current	$V_R=1200\text{V}$			10	μA
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=1.5\text{A}$		0.9		A
t_{rr}	Diode Reverse Recovery Time	$dI_F/dt=200\text{A}/\mu\text{s}$		37		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=30\text{V}$		57		nC
I_{RRM}	Diode peak Reverse Recovery Current	$I_F=15\text{A},$		6		A
t_{rr}	Diode Reverse Recovery Time	$dI_F/dt=200\text{A}/\mu\text{s}$		59		ns
Q_{RR}	Diode Reverse Recovery Charge	$V_R=100\text{V}$		196		nC

Fig.1 Forward Current vs Forward Voltage

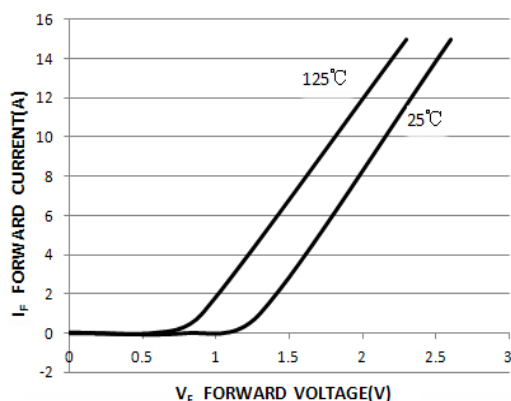


Fig.2 Reverse Current vs Reverse Voltage

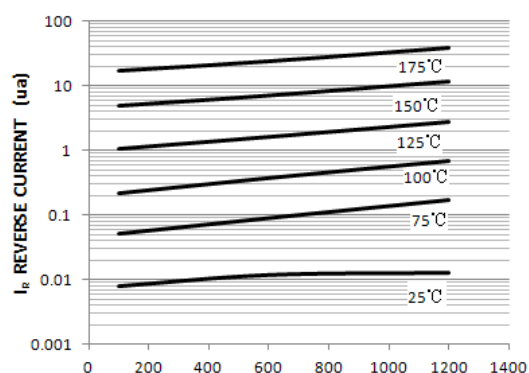


Fig.3 t_{rr} Test Circuit

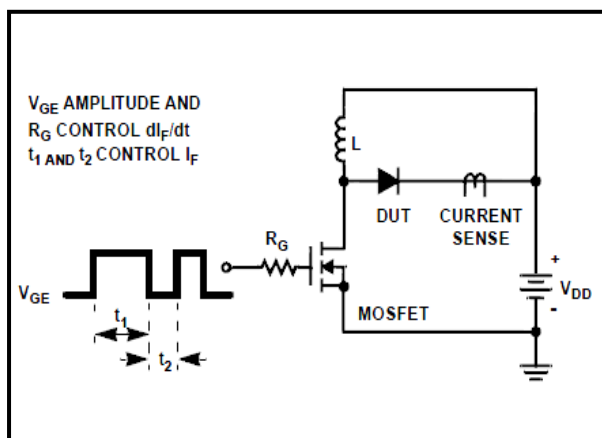


Fig.4 t_{rr} Waveforms and Definitions

