

Fast Rectifier Module , 2X60A


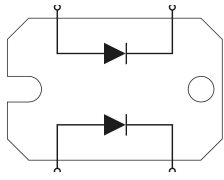
Features

- Two fully independent diodes
- Fully insulated package
- Ultrafast ,soft reverse recovery,with high operation junction temperature (150°C T_j)
- Lo forward voltage drop
- Optimized for power conversion:welding and industrial SMPS applications
- Easy to use and parallel
- Industry standard outline
- Designed and qualified for industrial level

$I_{FAV}=2 \times 100A$

$V_{RRM}=600 V$

$t_{rr}=120nS$

Absolute Maximum Ratings

Parameters	Symbol	Test Conditions	Max	Unit
Cathode to anode voltage	V_R		600	V
Continuous forward current per diode	I_F	$T_C=80^\circ C$	100	A
Single pulse forward current per diode	I_{FSM}	$T_C=25^\circ C$	600	A
Maximum power dissipation per module	P_D	$T_C=90^\circ C$	310	W
RMS isolation voltage	Visol	Ac.50Hz; R.M.S; 1min	2500	V
		Ac.50Hz; R.M.S; 1sec	3000	V
Maximum junction temperature	T_J		-55~+150	°C
Maximum case temperature	T_J		150	
Storage temperture	Tstg		-55~+150	

Electrical Specifications

Parameters	Symbol	Test Conditions	Values			Units
			Min.	Typ.	Max.	
Cathode to anode breakdown voltage	V_{BR}	$I_R=100\mu A$	620	—	—	V
Forward voltage	V_{FM}	$I_F=100 A T_J=25^\circ C$	—	1.25	1.45	
		$I_F=100A T_J=125^\circ C$	—	—	1.1	
Reverse leakage current	I_{RM}	$V_R=V_R \text{ rated } T_J=25^\circ C$	—	—	5	uA
		$V_R=V_R \text{ rated } T_J=175^\circ C$	—	—	2	mA

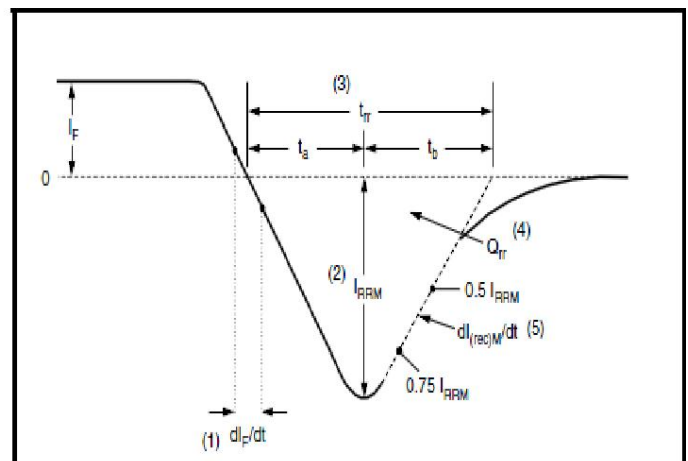
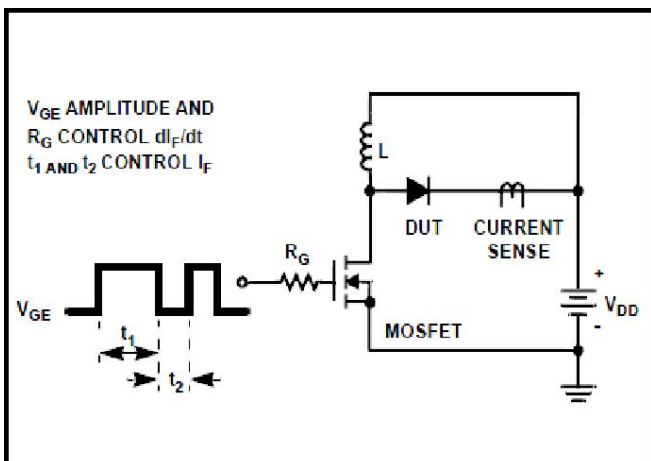
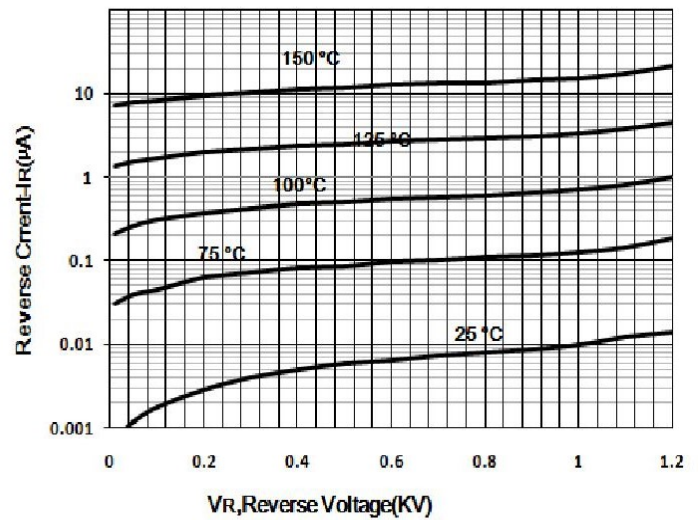
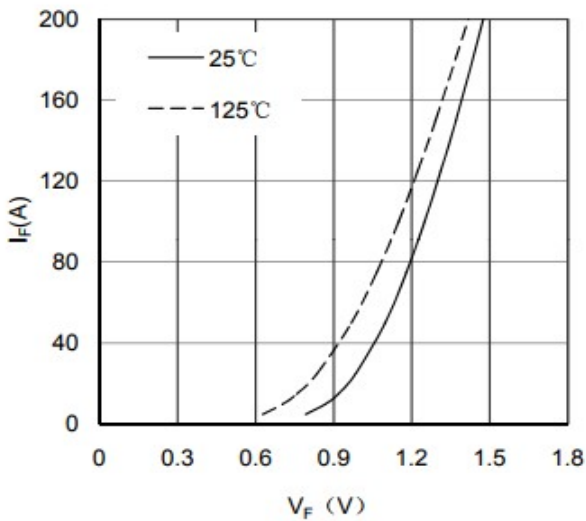
Dynamic Recovery Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise specified)

Parameters	Symbol	Test Conditions	Max	Unit
Reverse recovery time	t_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RRM}=0.25\text{A}$	120	nS
Peak recovery current	I_{RRM}	$I_F=75\text{A}, dI_F/dt=200\text{A}/\mu\text{S}, V_R=100\text{V}$	20	A

Thermal - Mechanical Specifications

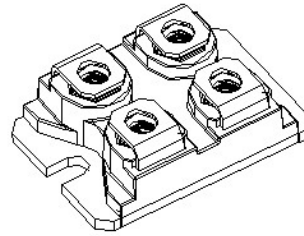
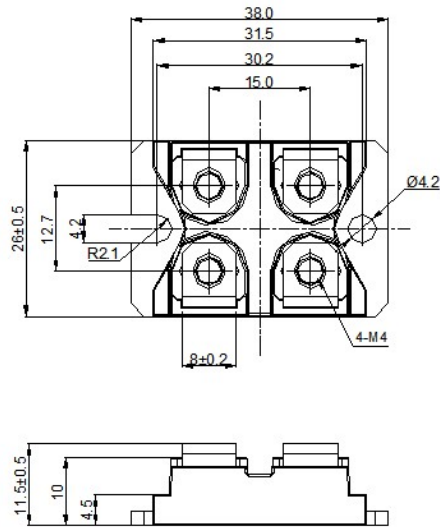
Parameters	Symbol	Test Conditions	Values			Units
			Min.	Typ.	Max.	
Junction to case ,single leg conducting	R_{thjc}		—	—	0.5	$^{\circ}\text{C}/\text{W}$
Junction to case ,both leg conducting			—	—	0.25	
Case to heatsink	R_{thcs}	Flat,greased surface	—	0.05	—	
Mounting Torque	Mt	Mounting torque(M4)	1.1	1.3	1.5	Nm
	Ms	Terminal connection torque(M4)	1.1	1.3	1.5	
Module(Approximately)	Weight			30		g

Performance Curves



Package Outline Information

SOT-227 Package



Dimensions in mm