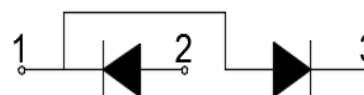


JBY High Power Products
Super Fast Recovery Diode ,200A
Features

- International standard package with DCB ceramic base plate
- Dual Diode construction
- Low Leakage Current
- Low forward voltage drop
- High surge current capability
- Super Fast Switching


Typical Applications

- Antiparallel diode for high frequency switching devices
- Free wheeling diode in converters and motor control circuits
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders


Maximum Ratings

Parameter	Symbol	Test Conditions	Values	Unit
Repetitive peak reverse voltage	V_{RRM}		1200	V
RMS reverse voltage	V_{RMS}		840	V
DC blocking voltage	V_{DC}		1200	V
Average forward current	$I_{F(AV)}$	TC=85°C	200	A
Non-repetitive forward surge current, half sine-wave	I_{FSM}	TC=25°C	2800	A

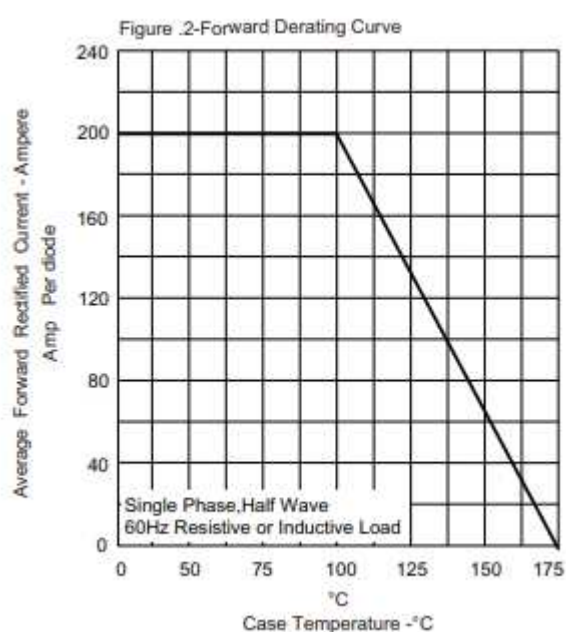
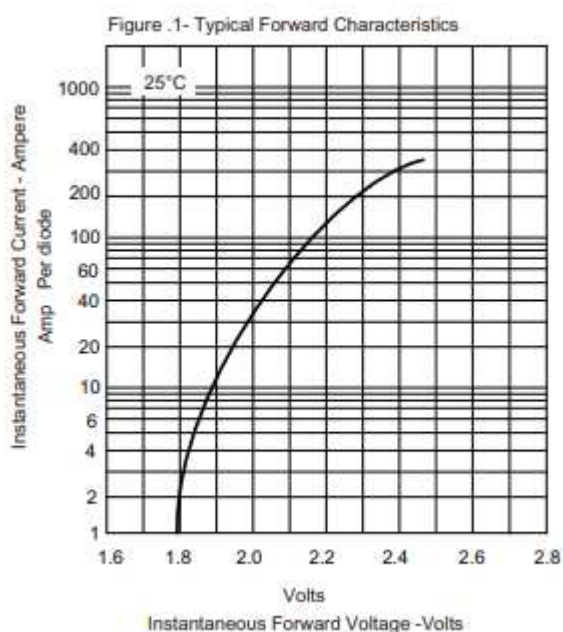
Electrical Specifications

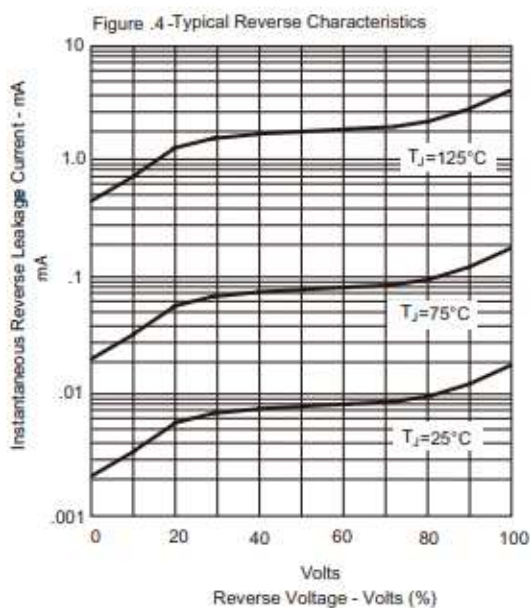
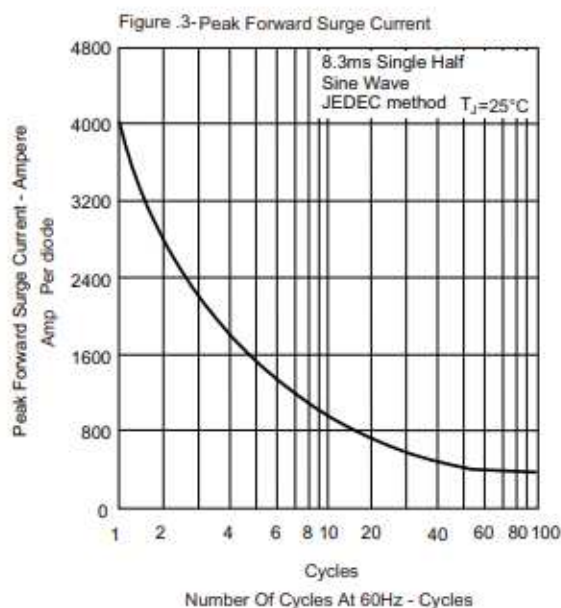
Parameter	Symbol	Test Conditions	Values	Unit
DC forward voltage	V_F	$I_F=200A$ $T_J=25^\circ C$	2.35	V
Maximum DC reverse current	I_R	$V_R=Rated V_{RRM}$ $T_J=25^\circ C$	50	uA
		$V_R=Rated V_{RRM}$ $T_J=125^\circ C$	1	mA
Maximum Reverse Recovery Time	trr	$V_{DD}=100V$, $I_F=45A$, $dif/dt=300A/us$; $T_J=25^\circ C$	150	ns
Reverse recovery charge(Area Under the curve Defined by IRRM And trr)	Qrr		--	nc

Diode Peak Reverse Recovery Current	I_{RRM}		11	A
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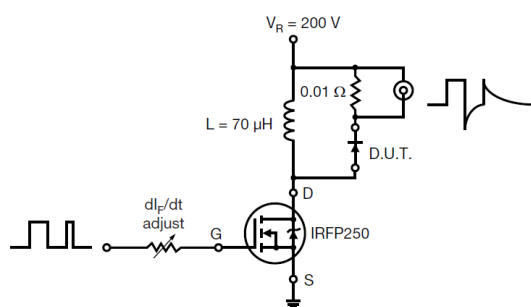
Thermal - Mechanical Specifications				
Parameter	Symbol	Test Conditions	Values	Unit
Thermal resistance junction to case	R_{thjc}		0.25	$^{\circ}\text{C/W}$
Junction and storage temperature range	T_J, T_{stg}		-40 to 150	$^{\circ}\text{C}$
Mounting Torque	Mt	To terminals(M6)	$5 \pm 15\%$	Nm
	Ms	To heatsink(M6)	$5 \pm 15\%$	
Module(Approximately)	Weight		160	g
Maximum RMS insulation voltage (for insulated type)	Visol	Ac.50Hz; R.M.S; 1min	2500	V
		Ac.50Hz; R.M.S; 1sec	3500	

Performance Curves

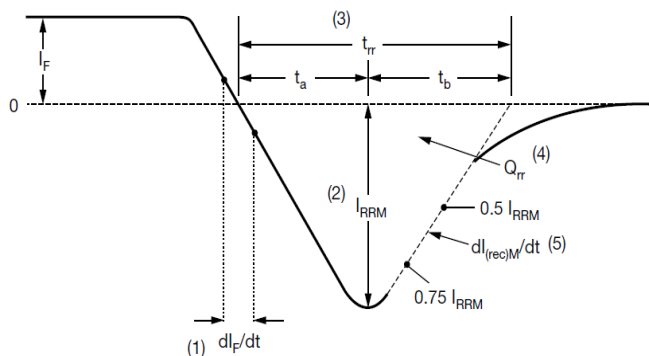




Reverse Recovery Parameter Test Circuit



Reverse Recovery Waveform and Definitions

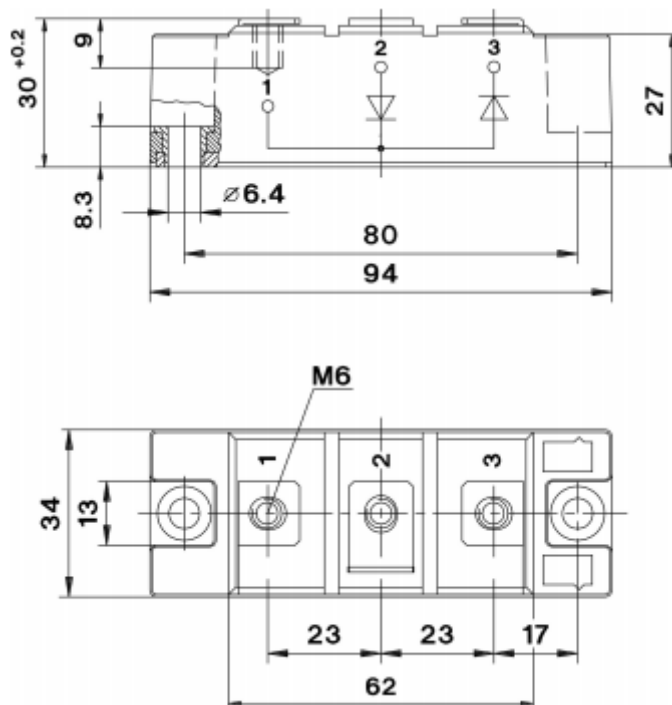


- (1) di_F/dt - rate of change of current through zero crossing
- (2) I_{RRM} - peak reverse recovery current
- (3) t_r - reverse recovery time measured from zero crossing point of negative going I_F to point where a line passing through $0.75 I_{RRM}$ and $0.50 I_{RRM}$ extrapolated to zero current.
- (4) Q_{rr} - area under curve defined by t_r and I_{RRM}
- (5) $di_{(rec)M}/dt$ - peak rate of change of current during t_b portion of t_r

$$Q_{rr} = \frac{t_r \times I_{RRM}}{2}$$

Package Outline Information

T2B Package



Dimensions in mm