

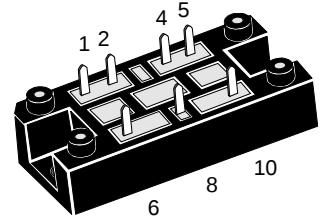
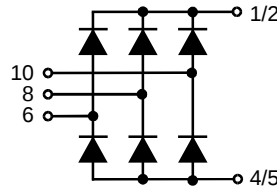
Three Phase Rectifier Bridge

$$V_{RRM} = 1200 \text{ V}$$

$$I_{dAV} = 50 \text{ A}$$

$$t_{rr} = 40 \text{ ns}$$

V_{RSM} V	V_{RRM} V	Type
1200	1200	VUE 50-12NO1



Symbol	Test Conditions	Maximum Ratings
I_{dAV}	$T_K = 85^\circ\text{C}$, module	50 A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 200 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 210 A
	$T_{VJ} = T_{VJM}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 185 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 195 A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 200 A^2s
		$t = 8.3 \text{ ms}$ (60 Hz), sine 180 A^2s
	$T_{VJ} = T_{VJM}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 170 A^2s
		$t = 8.3 \text{ ms}$ (60 Hz), sine 160 A^2s
T_{VJ}		-40...+150 $^\circ\text{C}$
T_{VJM}		150 $^\circ\text{C}$
T_{stg}		-40...+125 $^\circ\text{C}$
V_{ISOL}	50/60 Hz, RMS	$t = 1 \text{ min}$ 3000 V~
	$I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ s}$ 3600 V~
M_d	Mounting torque (M5) (10-32UNF)	2 - 2.5 Nm
		18-22 lb.in.
Weight	typ.	35 g

Features

- Package with DCB ceramic base plate
- Isolation voltage 3600 V~
- Planar passivated chips
- Leads suitable for PC board soldering
- Creeping and creepage-distance fulfils UL 508/CSA 22.2NO14 and VDE 0160 requirements
- Epoxy meet UL94V-O
- UL registered E72873

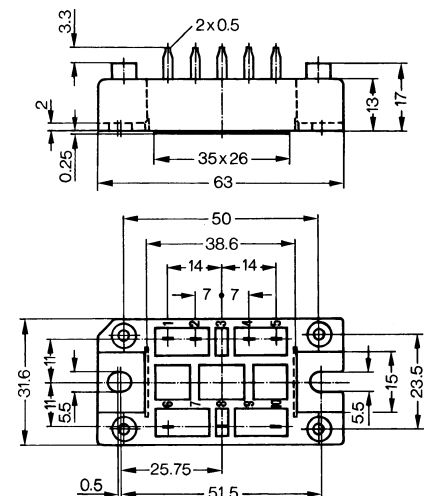
Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Output filter for PWM inverter

Advantages

- Reduced EMI/RFI
- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling

Dimensions in mm (1 mm = 0.0394")



Use output terminals in parallel connections

Data according to IEC 60747 and refer to a single diode unless otherwise stated.
IXYS reserves the right to change limits, test conditions and dimensions.

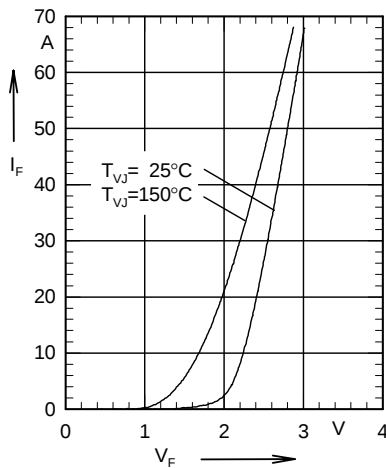


Fig. 1 Forward current versus voltage drop per diode.

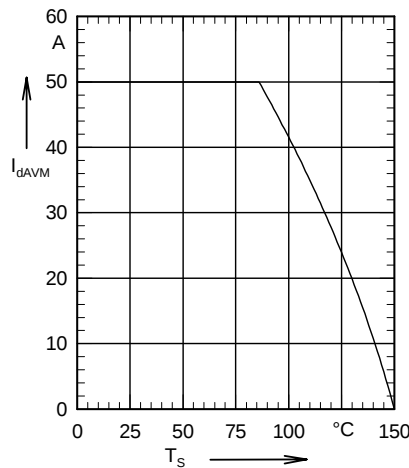


Fig. 2 Maximum forward current at heatsink temperature T_s .

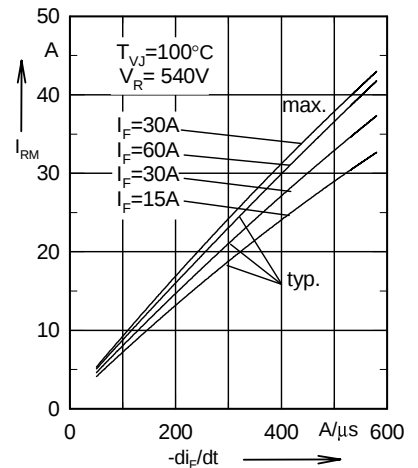


Fig. 3 Typical peak reverse current versus $-di_F/dt$.

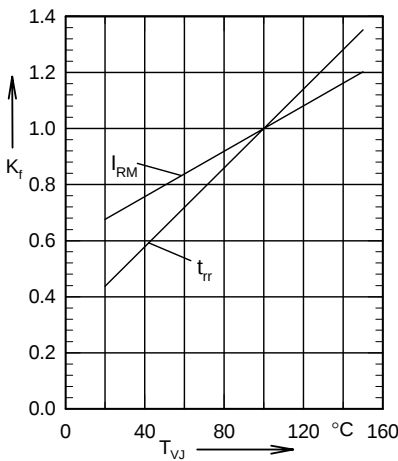


Fig. 4 Dynamic parameters versus junction temperature.

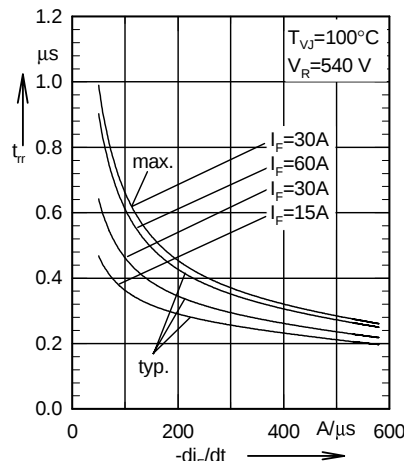


Fig. 5 Typical recovery time versus $-di_F/dt$.

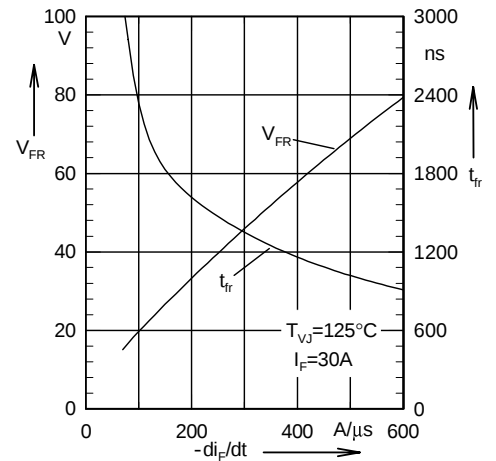


Fig. 6 Typical peak forward voltage and forward recovery time versus $-di_F/dt$.

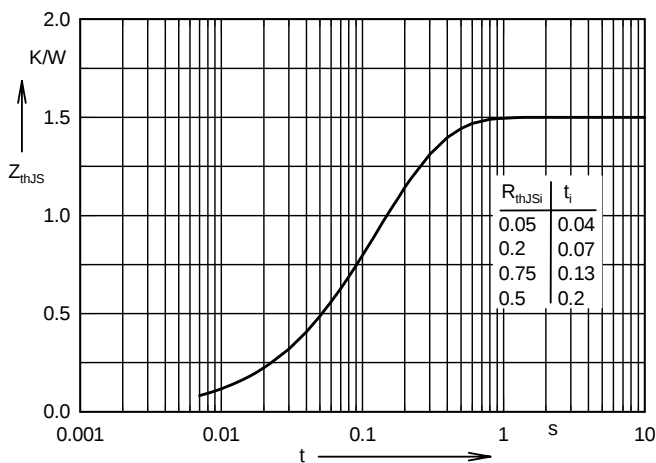


Fig. 7 Transient thermal impedance junction to heatsink

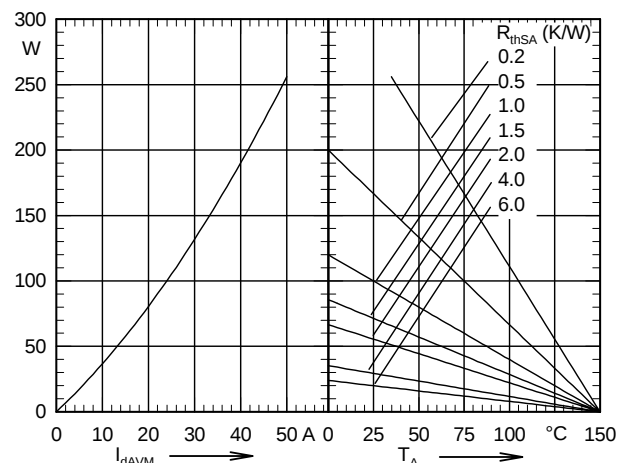


Fig. 8 Power dissipation versus direct output current and ambient temperature