

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[IXYS Corporation](#)
[VUE75-12NO7](#)

For any questions, you can email us directly:

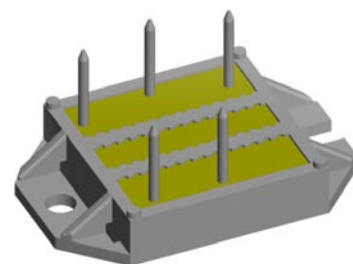
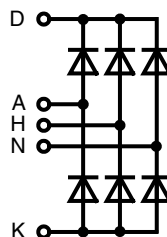
sales@integrated-circuit.com

ECO-PAC™

Three Phase Rectifier Bridge with Fast Recovery Epitaxial Diodes (FRED)

$$\begin{aligned} I_{dAV} &= 74 \text{ A} \\ V_{RRM} &= 1200 \text{ V} \\ t_{rr} &= 40 \text{ ns} \end{aligned}$$

V_{RSM} V	V_{RRM} V	Type
1200	1200	VUE 75-12NO7



Symbol	Conditions	Maximum Ratings	
I_{dAV} ①	$T_C = 85^\circ\text{C}$, module	74	A
I_{dAVM}		90	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	200	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	220	A
	$T_{VJ} = 125^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	170	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	190	A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	200	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	205	A ² s
	$T_{VJ} = 125^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	145	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	150	A ² s
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+125	°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 (M4)	1.5 - 2	Nm
Weight	typ.	19	g

Features

- Package with DCB ceramic base plate in low profile
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

Applications

- Supplies for DC power equipment
- Input and output rectifiers for high frequency
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Space and weight savings
- Improved temperature and power cycling capability
- Small and light weight
- Low noise switching

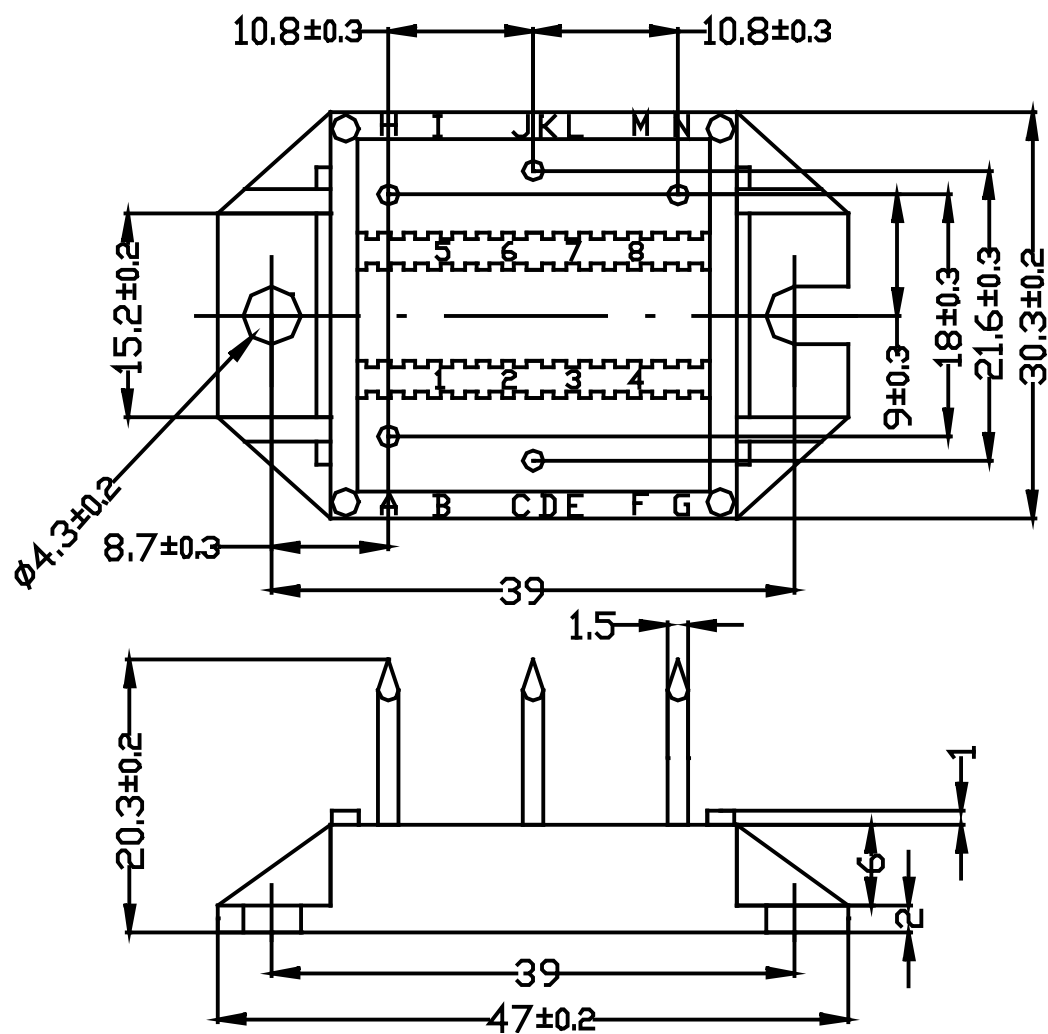
Symbol	Conditions	Characteristic Values		
(T _{VJ} = 25°C, unless otherwise specified)				
		typ.	max.	
I _R	V _R = V _{RRM} T _{VJ} = 25°C		0.25	mA
	V _R = V _{RRM} T _{VJ} = T _{VJM}		1.0	mA
V _F	I _F = 30 A T _{VJ} = 25°C		2.71	V
V _{T0}	For power-loss calculations only		1.31	V
r _t			15	mΩ
R _{thJC}	per diode; DC current		0.9	K/W
	per diode; DC current, typ.		0.3	K/W
I _{RM}	I _F = 50 A; -di _F /dt = 100 A/μs V _R = 100 V; L = 0.05 mH; T _{VJ} = 100°C	6	11.4	A
t _{rr}	I _F = 1 A; -di/dt = 200 A/μs; V _R = 30 V; T _{VJ} = 25°C	40	tbd	ns
d _S	Creeping distance on surface	50		m/s ²
d _A	Creepage distance in air	11.2		mm
a	Max. allowable acceleration	9.7		mm

Data according to IEC 60747 and refer to a single diode unless otherwise stated.
① for resistive load at bridge output.

IXYS reserves the right to change limits, test conditions and dimensions.

© IXYS All rights reserved

Dimensions in mm (1 mm = 0.0394")



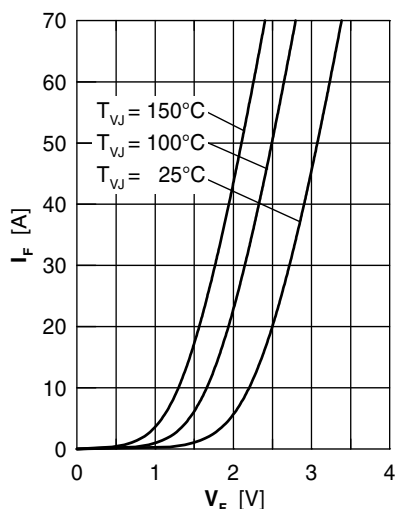


Fig. 1 Forward current I_F vs. V_F

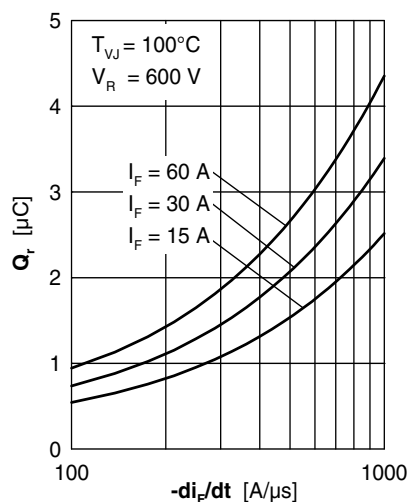


Fig. 2 Reverse recovery charge Q_r versus $-di_F/dt$

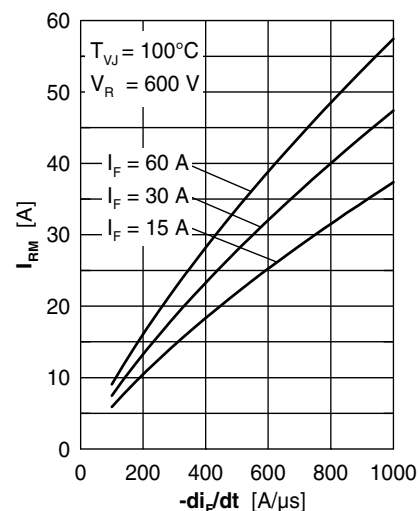


Fig. 3 Peak reverse current I_{RM} versus $-di_F/dt$

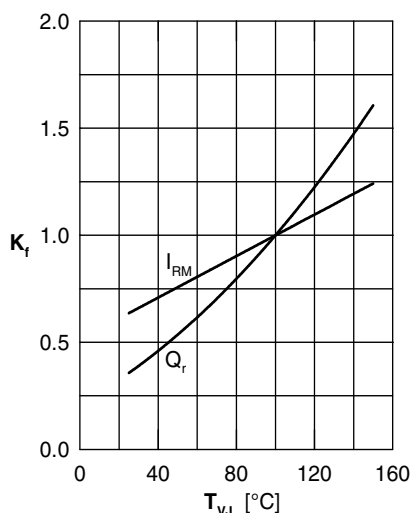


Fig. 4 Dynamic parameters Q_r , I_{RM} versus T_{VJ}

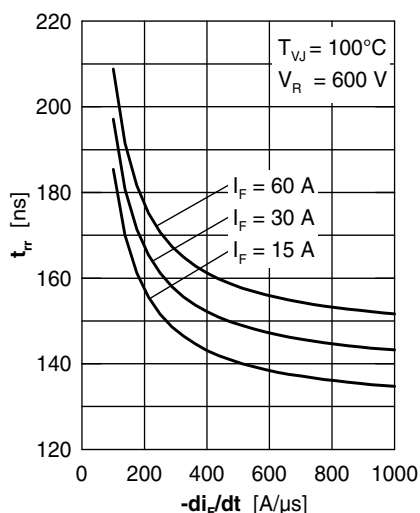


Fig. 5 Recovery time t_{tr} vs. $-di_F/dt$

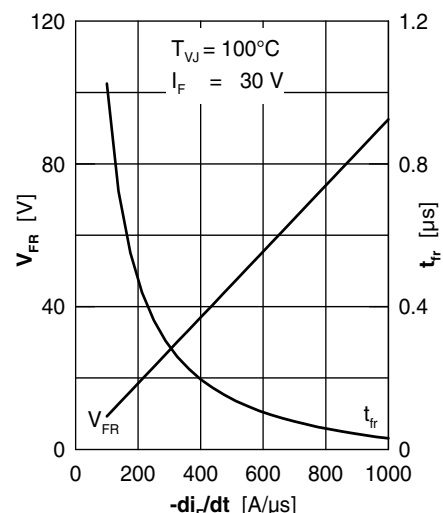


Fig. 6 Peak forward voltage V_{FR} and t_{tr} versus di_F/dt

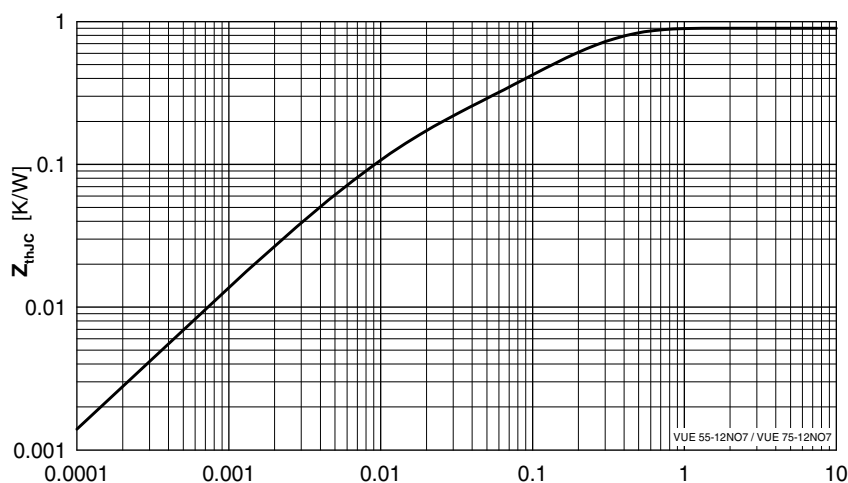


Fig. 7 Transient thermal resistance junction to case

Constants for Z_{thJC} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.3012	0.0052
2	0.116	0.0003
3	0.0241	0.0004
4	0.4586	0.0092