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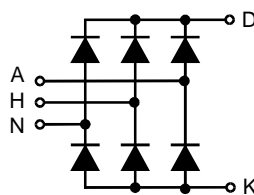
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sales@integrated-circuit.com

IXYS **VUE 22-06NO7**

ECO-PAC™
Three Phase Rectifier Bridge
 with Fast Recovery Epitaxial Diodes (FRED)

I_{dAV} = 34 A
V_{RRM} = 600 V
t_{rr} = 35 ns

V_{RSM}	V_{RRM}	Typ
V	V	
600	600	VUE 22-06NO7



Symbol	Conditions	Maximum Ratings	
I_{dAV} ①	T _C = 85°C, module	34	A
I_{dAVM}		90	A
I_{FSM}	T _{VJ} = 45°C	t = 10 ms (50 Hz), sine	50 A
	V _R = 0	t = 8.3 ms (60 Hz), sine	55 A
	T _{VJ} = T _{VJM}	t = 10 ms (50 Hz), sine	45 A
	V _R = 0	t = 8.3 ms (60 Hz), sine	50 A
I²t	T _{VJ} = 45°C	t = 10 ms (50 Hz), sine	15 A ² s
	V _R = 0	t = 8.3 ms (60 Hz), sine	15 A ² s
	T _{VJ} = T _{VJM}	t = 10 ms (50 Hz), sine	10 A ² s
	V _R = 0	t = 8.3 ms (60 Hz), sine	10 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 min	3000 V~
	I _{ISOL} ≤ 1 mA	t = 1 s	3600 V~
M_d	Mounting torque (M4)	1.5-2/14-18	Nm/lb.in.
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

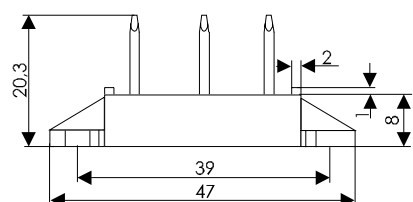
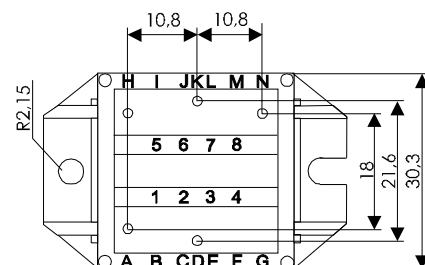
- Supplies for DC power equipment
- Input and output rectifiers for high frequency
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R	V _R = V _{RRM} T _{VJ} = 25°C		0.06 mA
		V _R = V _{RRM} T _{VJ} = T _{VJM}	0.25 mA
V_F	I _F = 10 A T _{VJ} = 25°C		2.09 V
V_{T0}	for power-loss calculations only		1.18 V
r_T			22 mΩ
R_{thJC}	per diode; DC current		2.5 K/W
R_{thCH}	per diode, DC current, typ.		0.3 K/W
I_{RM}	I _F = 12 A, -di/dt = 100 A/μs V _R = 100 V, L = 0.05 mH, T _{VJ} = 100°C	4	4.4 A
t_{rr}	I _F = 1 A; -di/dt = 50 A/μs; V _R = 30 V, T _{VJ} = 25°C	35	tbd ns
a	Max. allowable acceleration	50	m/s ²
d_s	creeping distance on surface	11.2	mm
d_A	creepage distance in air	9.7	mm

Dimensions in mm (1 mm = 0.0394")



Data according to IEC 60747 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.

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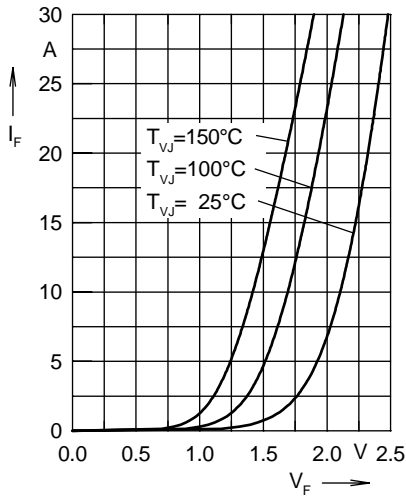


Fig. 1 Forward current I_F versus V_F

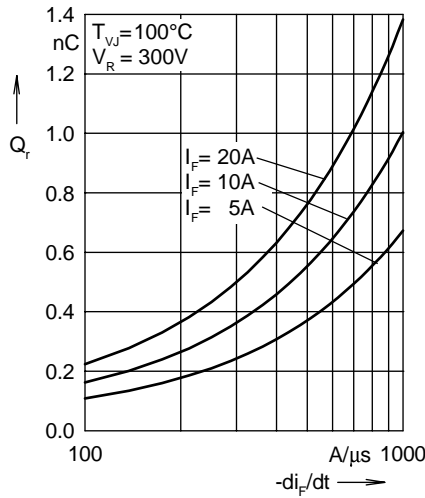


Fig. 2 Reverse recovery charge Q_r versus $-di_F/dt$

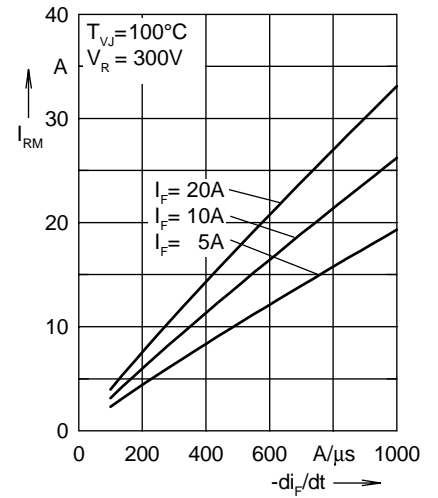


Fig. 3 Peak reverse current I_{RM} versus $-di_F/dt$

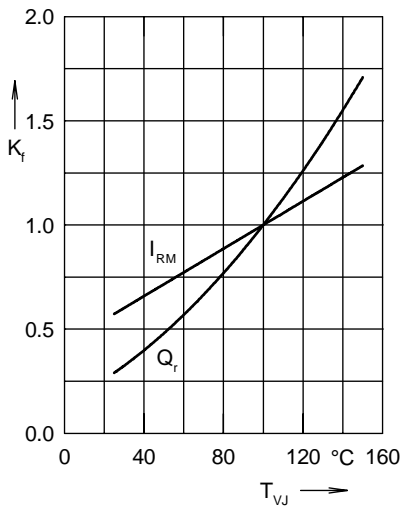


Fig. 4 Dynamic parameters Q_r , I_{RM} versus T_{VJ}

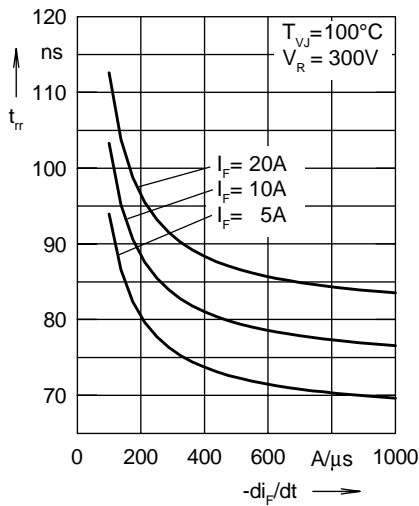


Fig. 5 Recovery time t_{rr} versus $-di_F/dt$

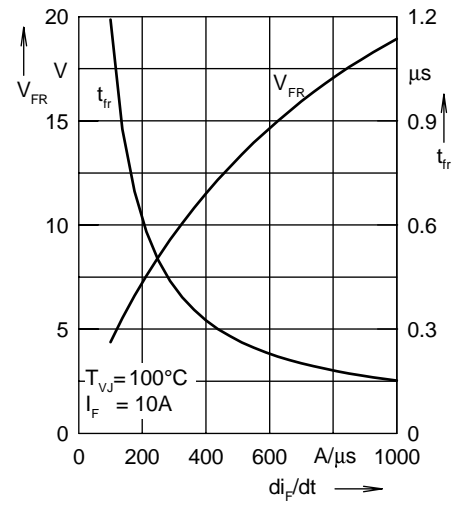


Fig. 6 Peak forward voltage V_{FR} and t_{rr} versus di_F/dt

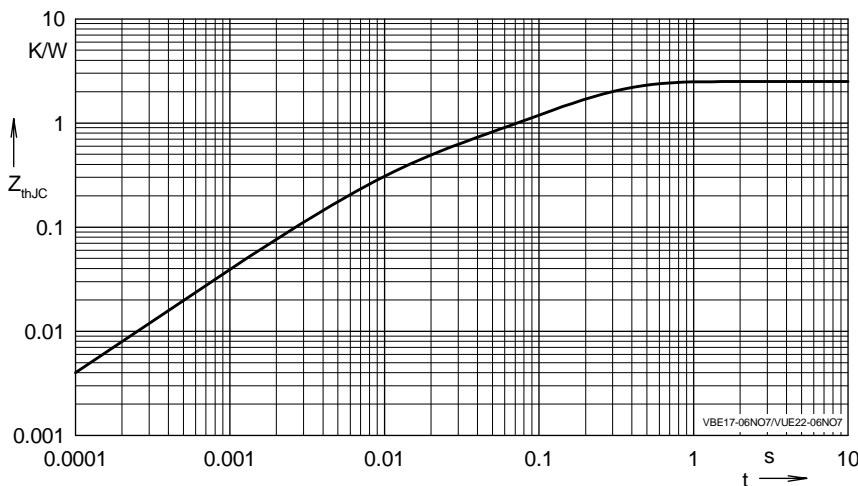


Fig. 7 Transient thermal resistance junction to case

Constants for Z_{thJC} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.8776	0.0052
2	0.3378	0.0003
3	0.0678	0.0004
4	1.2168	0.0092

NOTE: Fig. 2 to Fig. 6 shows typical values