Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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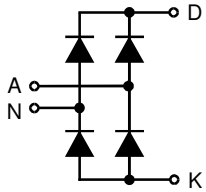
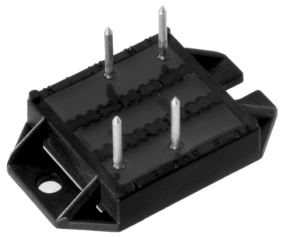
ECO-PAC™
Single Phase Rectifier Bridge
with Fast Recovery Epitaxial Diodes (FRED)

I_{dAV} = 19 A
V_{RRM} = 1200 V
t_{rr} = 40 ns

V_{RSM} V	V_{RRM} V	Typ
1200	1200	VBE 17-12NO7





Symbol	Conditions		Maximum Ratings	
I_{dAV} ①	T_C = 85°C, module		19	A
I_{dAVM}			90	A
I_{FSM}	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	40	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	45	A
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	35	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	40	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	10	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	10	A^2s
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	5	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	5	A^2s
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~
	$I_{ISOL} \leq$ 1 mA	t = 1 s	3600	V~
M_d	Mounting torque	(M4)	1.5-2/14-18	Nm/lb.in.
Weight	typ.		19	g

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		2.92	V
V_{T0}	for power-loss calculations only			1.32	V
r_T				30	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, -diF/dt = 100 A/µs		4	8.5	A
	V_R = 100 V, L = 0.05 mH, T_{VJ} = 100°C				
t_{rr}	I_F = 1 A; -di/dt = 50 A/µs; V_R = 30 V, T_{VJ} = 25°C		40	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

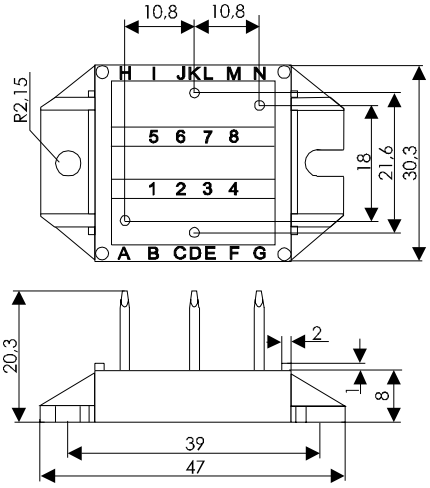
Data according to IEC 60747 refer to a single diode unless otherwise stated
① for resistive load at bridge output.

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

Dimensions in mm (1 mm = 0.0394")



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

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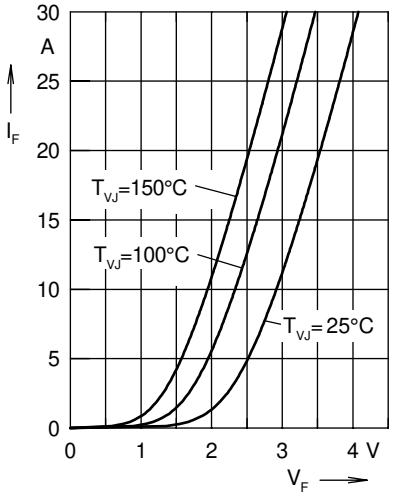

Fig. 1 Forward current I_F versus V_F

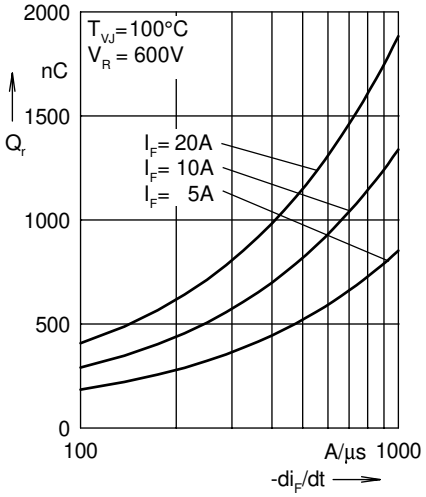

Fig. 2 Reverse recovery charge Q_r versus -di_F/dt

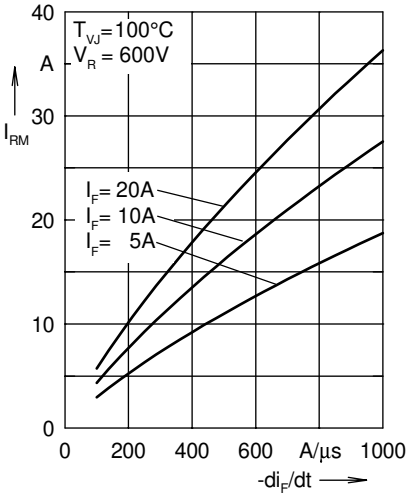

Fig. 3 Peak reverse current I_{RM} versus -di_F/dt

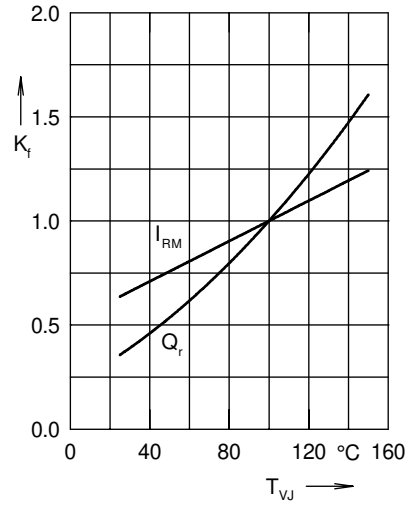

Fig. 4 Dynamic parameters Q_r, I_{RM} versus T_{VJ}

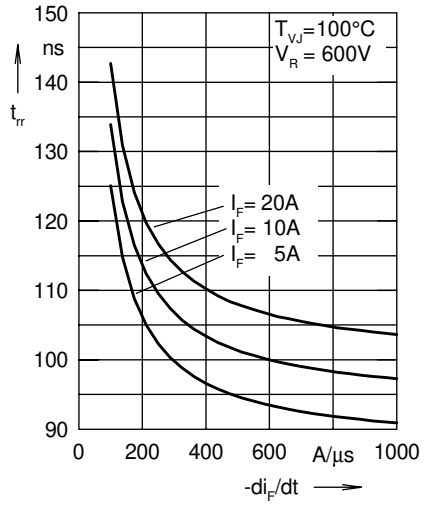

Fig. 5 Recovery time t_{rr} versus -di_F/dt

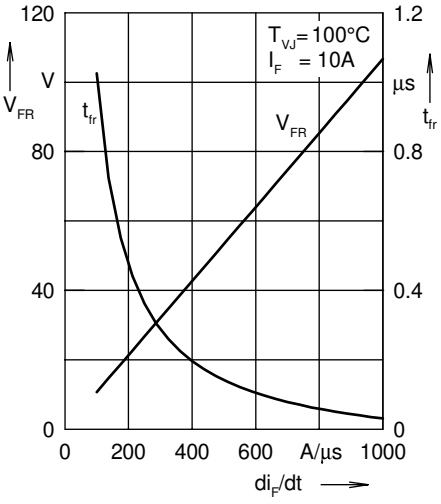

Fig. 6 Peak forward voltage V_{FR} and t_{fr} versus di_F/dt

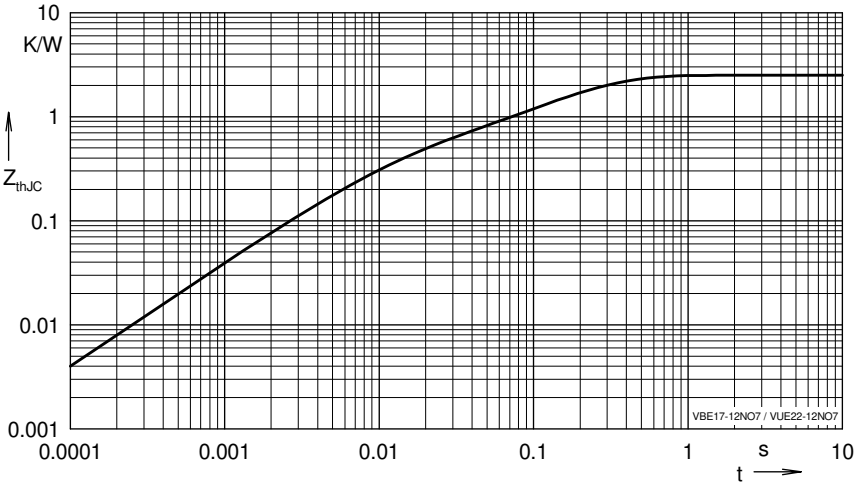

Fig. 7 Transient thermal resistance junction to case

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