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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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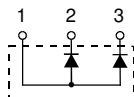
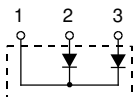
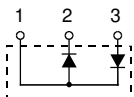
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Fast Recovery Epitaxial Diode (FRED) Module

MEA 95-06 DA
MEK 95-06 DA
MEE 95-06 DA

$V_{RRM} = 600 \text{ V}$
 $I_{FAV} = 95 \text{ A}$
 $t_{rr} = 250 \text{ ns}$

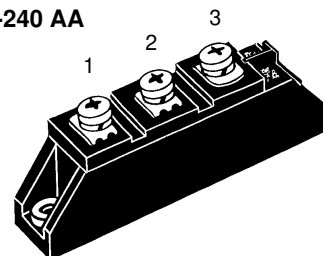
V_{RSM} V	V_{RRM} V	Type	MEA95-06 DA	MEK 95-06 DA	MEE 95-06 DA
600	600				

Symbol	Test Conditions	Maximum Ratings	
I_{FRMS}	$T_{case} = 75^{\circ}\text{C}$	142	A
$I_{FAV}^{①}$	$T_{case} = 75^{\circ}\text{C}$; rectangular, $d = 0.5$	95	A
I_{FRM}	$t_p < 10 \mu\text{s}$; rep. rating, pulse width limited by T_{VJM}	TBD	A
I_{FSM}	$T_{VJ} = 45^{\circ}\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	1200	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	1300	A
	$T_{VJ} = 150^{\circ}\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	1080	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	1170	A
I^2t	$T_{VJ} = 45^{\circ}\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	7200	A^2s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	7100	A^2s
	$T_{VJ} = 150^{\circ}\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	5800	A^2s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	5700	A^2s
T_{VJ}		-40...+150	$^{\circ}\text{C}$
T_{stg}		-40...+125	$^{\circ}\text{C}$
T_{Hmax}		110	$^{\circ}\text{C}$
P_{tot}	$T_{case} = 25^{\circ}\text{C}$	280	W
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)	2.5-4/22-35	Nm/lb.in.
	Terminal connection torque (M5)	2.5-4/22-35	Nm/lb.in.
d_s	Creep distance on surface	12.7	mm
d_A	Strike distance through air	9.6	mm
a	Maximum allowable acceleration	50	m/s^2
Weight		90	g

Symbol	Test Conditions	Characteristic Values (per diode)	
		typ.	max.
I_R	$T_{VJ} = 25^{\circ}\text{C}$ $V_R = V_{RRM}$		2 mA
	$T_{VJ} = 25^{\circ}\text{C}$ $V_R = 0.8 \cdot V_{RRM}$		0.5 mA
	$T_{VJ} = 125^{\circ}\text{C}$ $V_R = 0.8 \cdot V_{RRM}$		34 mA
V_F	$I_F = 100 \text{ A}$; $T_{VJ} = 125^{\circ}\text{C}$		1.36 V
	$T_{VJ} = 25^{\circ}\text{C}$		1.55 V
	$I_F = 300 \text{ A}$; $T_{VJ} = 125^{\circ}\text{C}$		2.05 V
	$T_{VJ} = 25^{\circ}\text{C}$		2.09 V
V_{T0}	For power-loss calculations only	1.01	V
r_T	$T_{VJ} = 125^{\circ}\text{C}$	2.85	$\text{m}\Omega$
R_{thJH}	DC current	0.550	K/W
R_{thJC}	DC current	0.450	K/W
t_{rr} I_{RM}	$I_F = 100 \text{ A}$ $V_R = 300 \text{ V}$ $-di/dt = 200 \text{ A}/\mu\text{s}$	250	300 ns
	$T_{VJ} = 100^{\circ}\text{C}$		14 A
	$T_{VJ} = 25^{\circ}\text{C}$		21 A
	$T_{VJ} = 100^{\circ}\text{C}$		

① I_{FAV} rating includes reverse blocking losses at T_{VJM} , $V_R = 0.6 V_{RRM}$, duty cycle $d = 0.5$
Data according to IEC 60747
IXYS reserves the right to change limits, test conditions and dimensions

TO-240 AA



Features

- International standard package with DCB ceramic base plate
- Planar passivated chips
- Short recovery time
- Low switching losses
- Soft recovery behaviour
- Isolation voltage 3600 V~
- UL registered E 72873

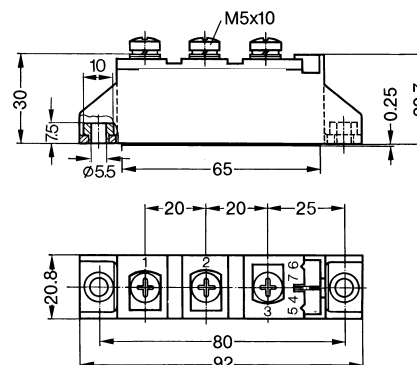
Applications

- 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

Advantages

- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Dimensions in mm (1 mm = 0.0394")



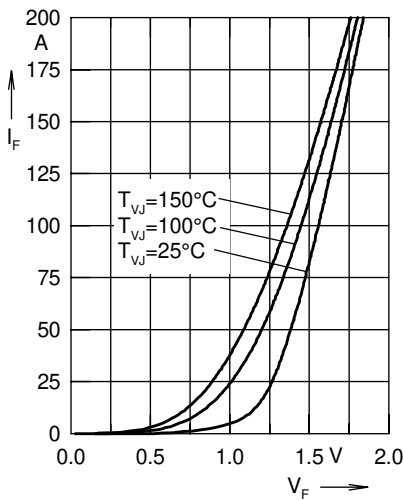


Fig. 1 Forward current I_F versus voltage drop V_F per leg

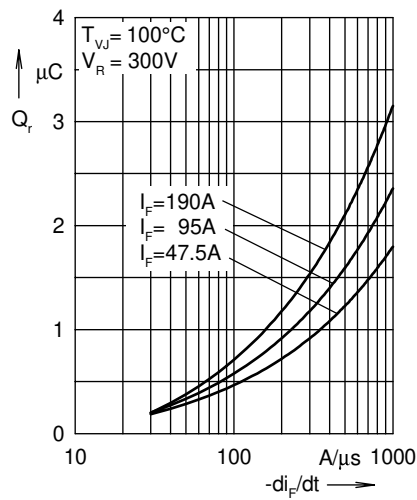


Fig. 2 Reverse recovery charge Q_r versus $-di_F/dt$

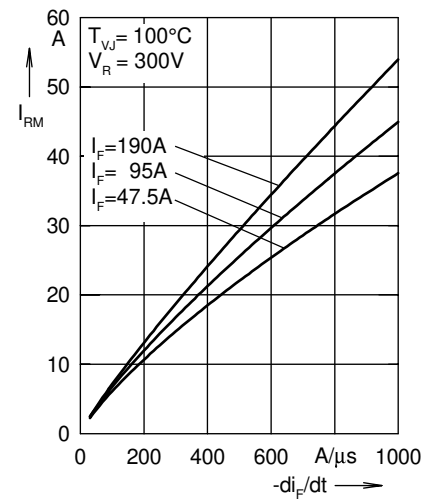


Fig. 3 Peak reverse current I_{RM} versus $-di_F/dt$

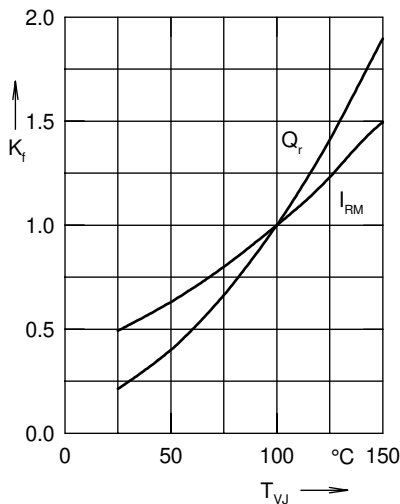


Fig. 4 Dynamic parameters Q_r , I_{RM} versus junction temperature T_{VJ}

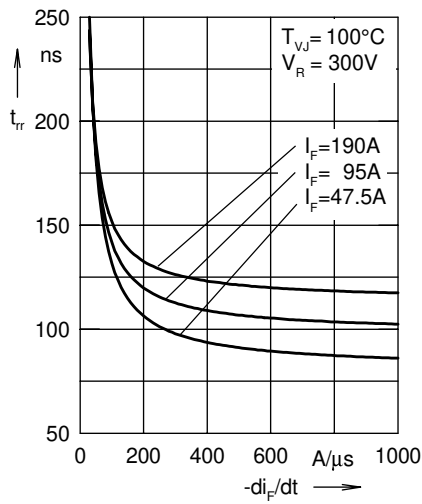


Fig. 5 Recovery time t_{rr} versus $-di_F/dt$

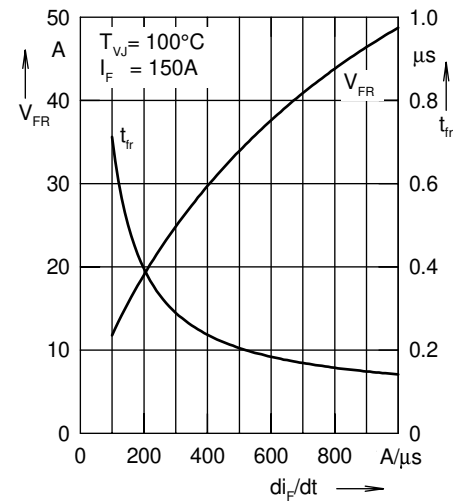


Fig. 6 Peak forward voltage V_{FR} and t_{fr} versus di_F/dt

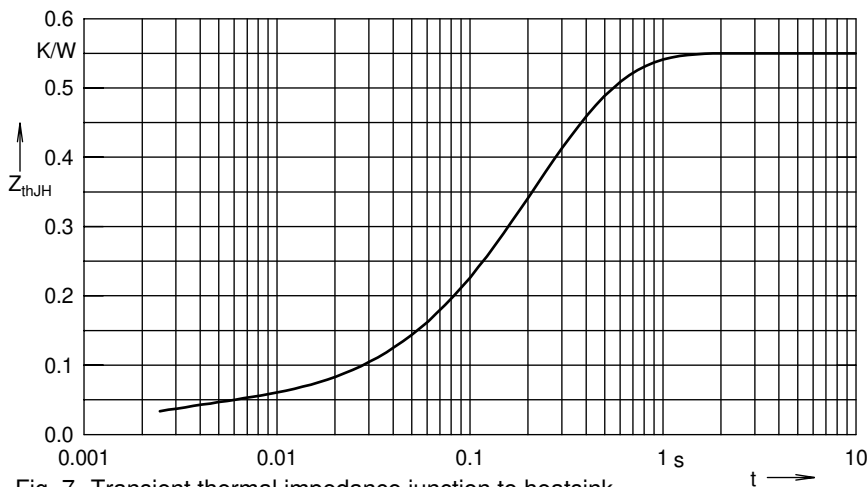


Fig. 7 Transient thermal impedance junction to heatsink

Constants for Z_{thJH} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.037	0.002
2	0.138	0.134
3	0.093	0.25
4	0.282	0.274