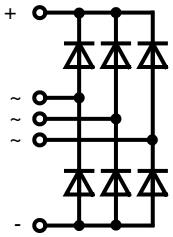
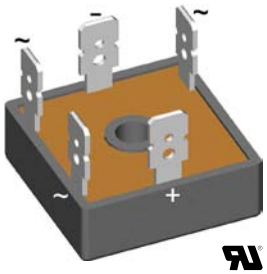
Three Phase Rectifier Bridge

I_{dAV} = 35 A
V_{RRM} = 800/1600 V

V_{RSM} V	V_{RRM} V	Type
900	800	IX36MT080
1700	1600	IX36MT160





E72873

Symbol	Conditions			Maximum Ratings	
I_{dAV}	T_C = 85°C, module			27	A
I_{dAVM}	T_C = 62°C, module			35	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms	(50 Hz)	550	A
	V_R = 0	t = 8.3 ms	(60 Hz)	600	A
	$T_{VJ} = T_{VJM}$;	t = 10 ms	(50 Hz)	500	A
	V_R = 0	t = 8.3 ms	(60 Hz)	550	A
I^2t	T_{VJ} = 45°C;	t = 10 ms	(50 Hz)	1520	A^2s
	V_R = 0	t = 8.3 ms	(60 Hz)	1520	A^2s
	$T_{VJ} = T_{VJM}$;	t = 10 ms	(50 Hz)	1250	A^2s
	V_R = 0	t = 8.3 ms	(60 Hz)	1250	A^2s
T_{VJ}				-40...+150	°C
T_{VJM}				150	°C
T_{stg}				-40...+150	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min		2500	V~
	$I_{ISOL} \leq$ 1 mA	t = 1 s		3000	V~
M_d	Mounting torque	(M5)		2 ±10%	Nm
		(10-32 UNF)		18 ±10%	lb.in.
Weight	Typ.			22	g

Symbol	Conditions		Characteristic Values	
I_R	$V_R = V_{RRM}$	T_{VJ} = 25°C	0.3	mA
		$T_{VJ} = T_{VJM}$	2.0	mA
V_F	I_F = 150 A	T_{VJ} = 25°C	1.7	V
V_{T0}	For power-loss calculations only		0.8	V
r_t			7.4	mΩ
R_{thJC}	per diode; 120° el.		7.50	K/W
	per module		1.25	K/W
R_{thJH}	per diode; 120° el.		8.40	K/W
	per module		1.40	K/W
d_S	Creeping distance on surface		12.7	mm
d_A	Creepage distance in air		9.4	mm
a	Max. allowable acceleration		50	m/s^2

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

Features

- Package with ¼" fast-on terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop

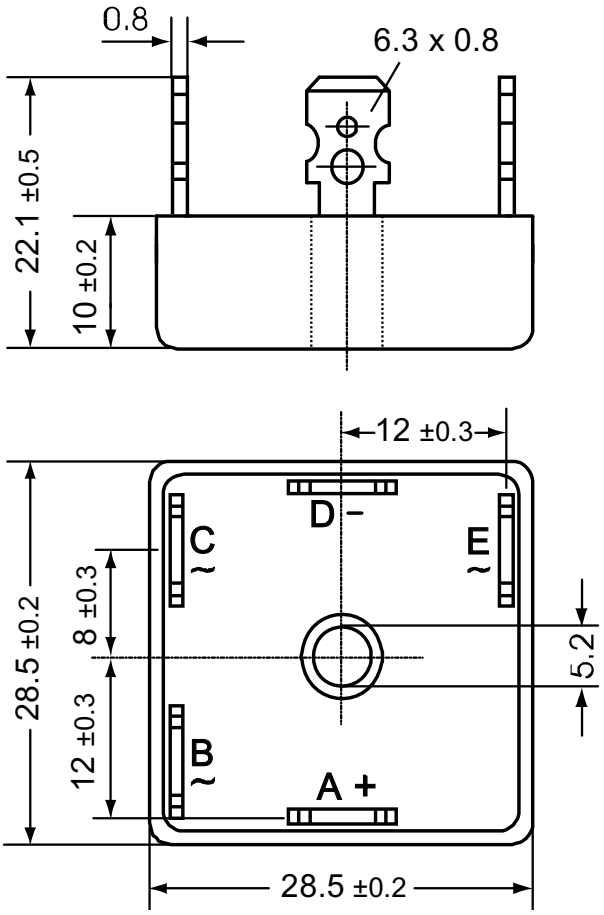
Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with one screw
- Space and weight savings
- Improved temperature & power cycling

Dimensions in mm (1 mm = 0.0394“)



Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Ordering Code
Standard	IX36MT080	IX36MT080	Box	50	514573
Standard	IX36MT160	IX36MT160	Box	50	510543

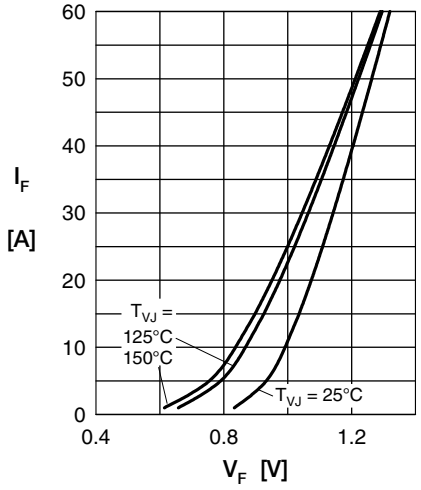


Fig. 1 Forward current vs. voltage drop per diode

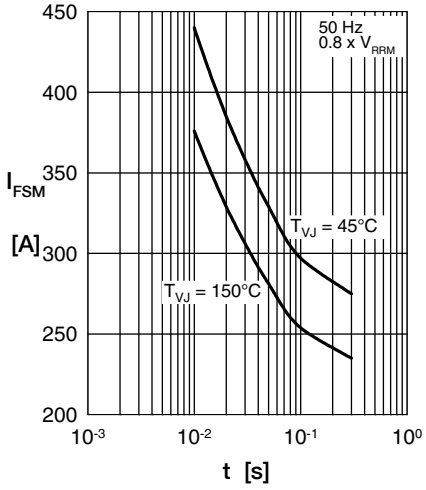


Fig. 2 Surge overload current vs. time per diode

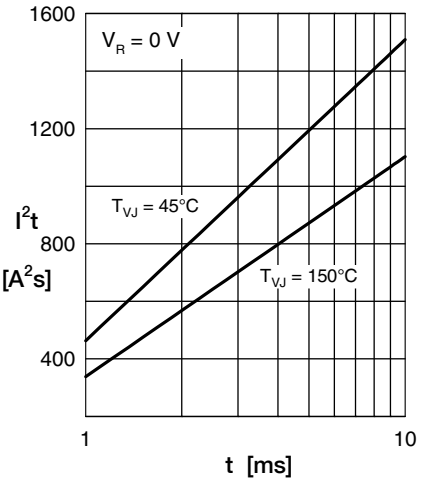


Fig. 3 I^2t vs. time per diode

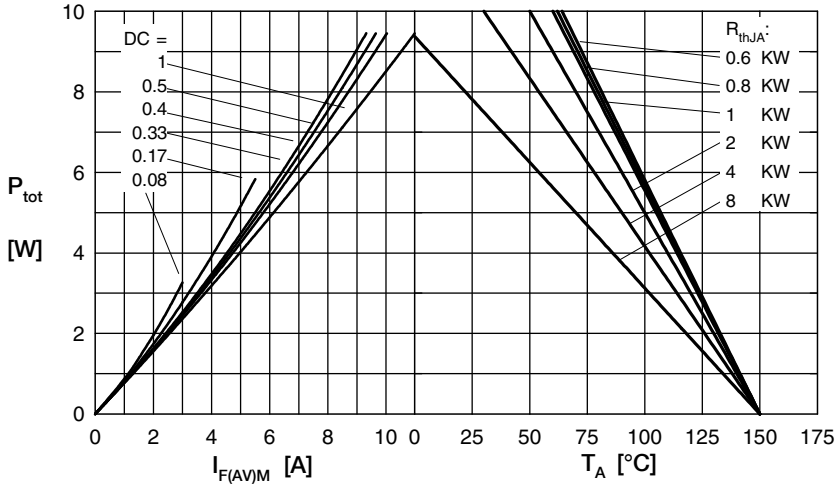


Fig. 4 Power dissipation vs. forward current and ambient temperature per diode

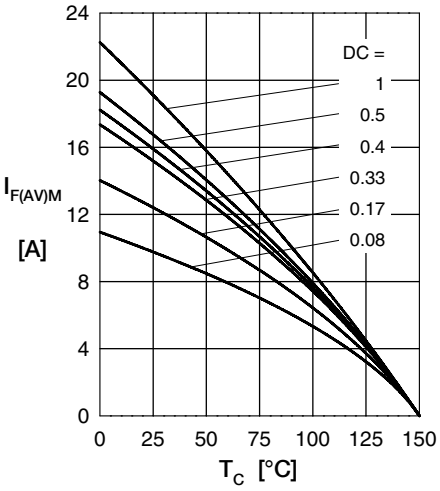
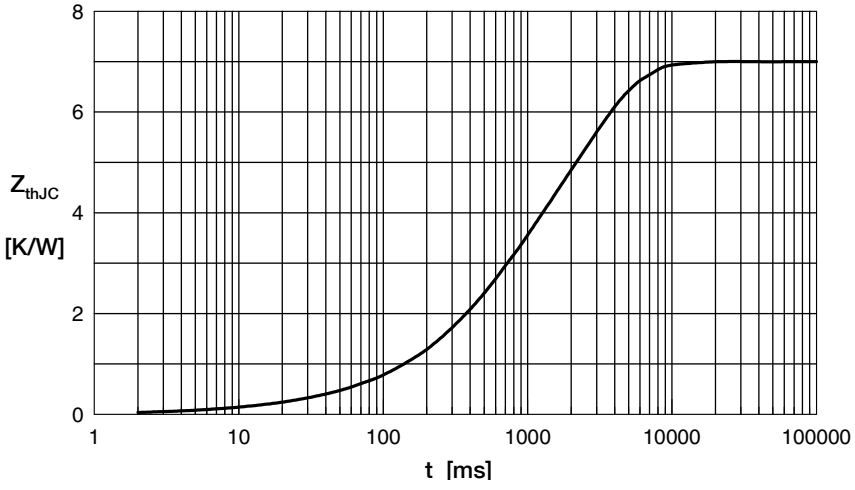


Fig. 5 Max. forward current vs. case temperature per diode



Constants for Z_{thJC} calculation:

i	R_{th} (K/W)	t_i (s)
1	0.040	0.005
2	0.150	0.030
3	1.710	0.400
4	5.100	2.300