



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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### HIGH CURRENT, HIGH DENSITY, SINGLE PHASE FULL WAVE BRIDGE RECTIFIER.

### QUICK REFERENCE DATA

- Low thermal impedance
- Small size and low weight
- High current applications
- Isolated for direct heatsink mounting
- High surge ratings

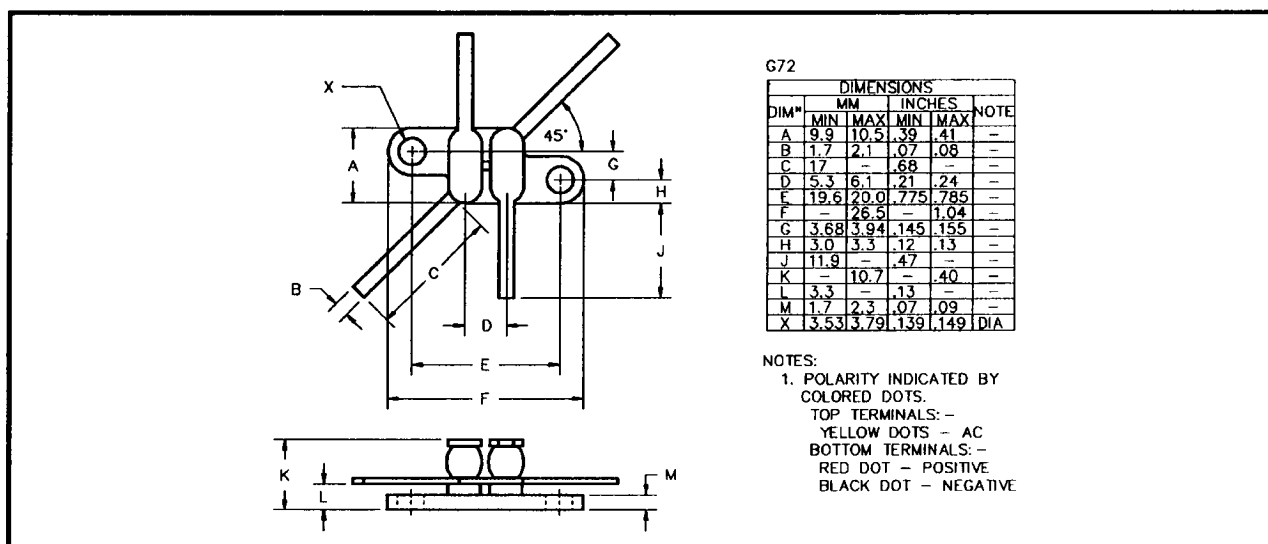
- $V_{RWM} = 150V - 1000V$
- $I_O = 30A$
- $t_{rr} = 30nS - 2\mu S$
- $I_{FSM} \geq 150A$

### ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage ( $V_{RWM}$ )	Average Rectified Current ( $I_{F(AV)}$ ) @ $T_{MB}$			1 Cycle Surge Current $I_{FSM}$ @ $t_p = 8.3mS$		Operating & Storage Temperature Range	
		@ 55°C	100°C	125°C	@ 25°C	@ 100°C	( $T_{OP}$ )	( $T_{STG}$ )
	Volts	Amps	Amps	Amps	Amps	Amps	°C	
SET121203	1000	30	22	16	150	100	-55 to +175	
SET121219	1000	20	16	12	150	80	-55 to +175	
SET121212	600	30	22	16	150	100	-55 to +175	
SET121204	400	30	22	16	150	80	-55 to +175	
SET121211	150	30	20	14	175	175	-55 to +150	

$$R_{\theta JMB} = 0.75^{\circ}C/W$$

### MECHANICAL



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### ELECTRICAL CHARACTERISTICS

Device Type	Maximum Leakage Current $I_R$ @ $V_{RWM}$		Maximum Forward Voltage $V_F$ @ 9A/leg @ 25°C	Maximum Reverse Recovery Time $t_{rr}$ @ 25°C
	$T_j = 25^\circ\text{C}$	$T_j = 100^\circ\text{C}$		
	$\mu\text{A}$	$\mu\text{A}$	Volts	nS
SET121203	2.0	40	1.2	2000
SET121219	2.0	50	2.2	150
SET121212	2.0	40	1.2	2000
SET121204	2.0	40	1.5	150
SET121211	20.0	1mA	1.1	30

<sup>1</sup> Measured on discrete devices prior to assembly

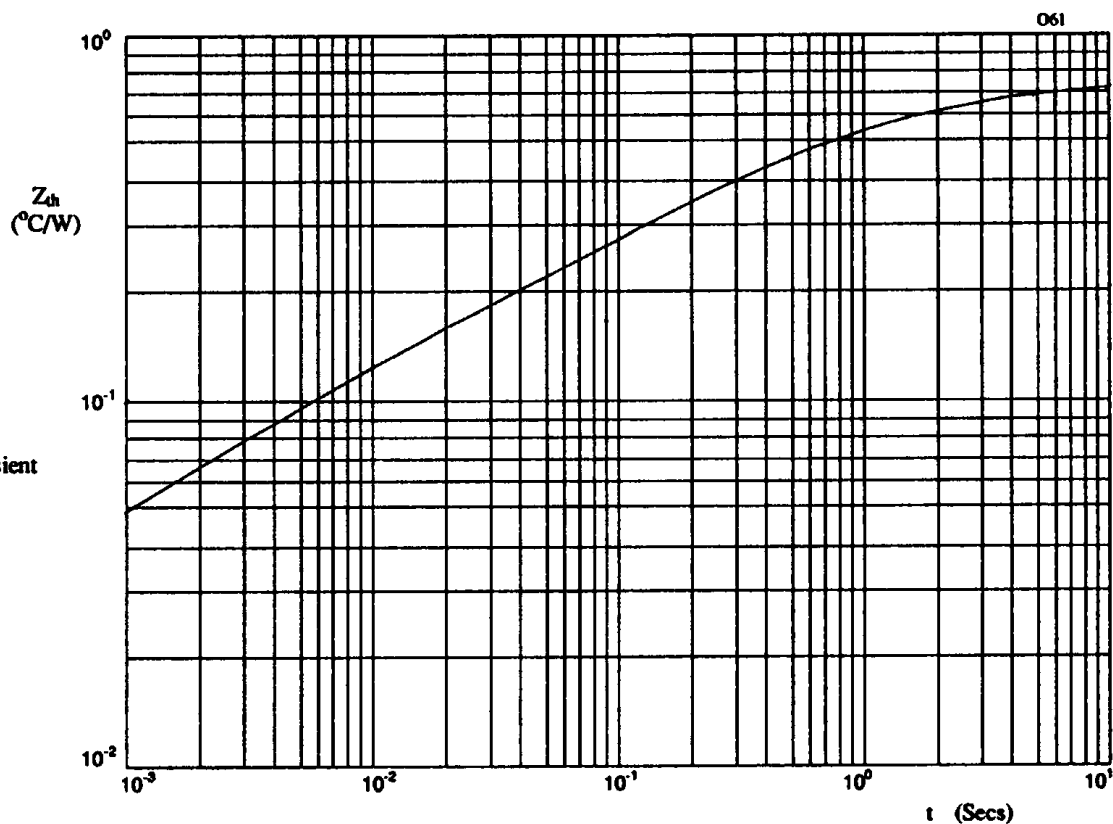


Figure 1. Typical transient thermal impedance characteristic.



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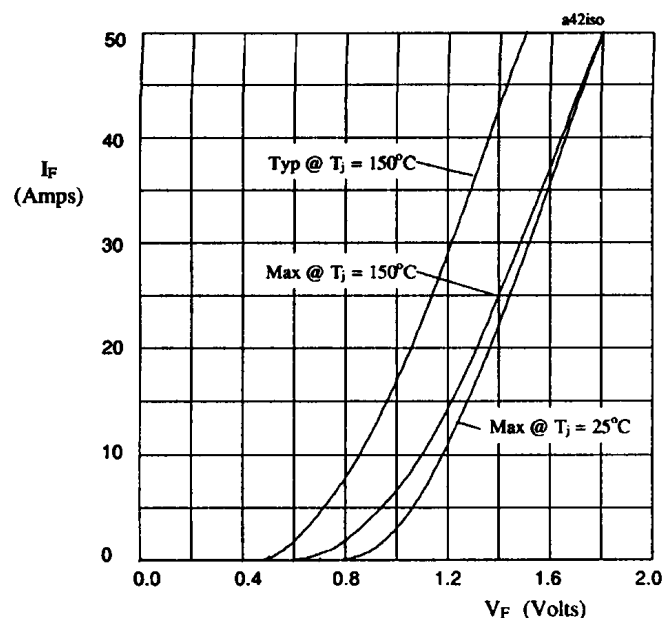


Figure 2. Forward voltage drop per leg as a function of forward current for SET121203 & SET121212.

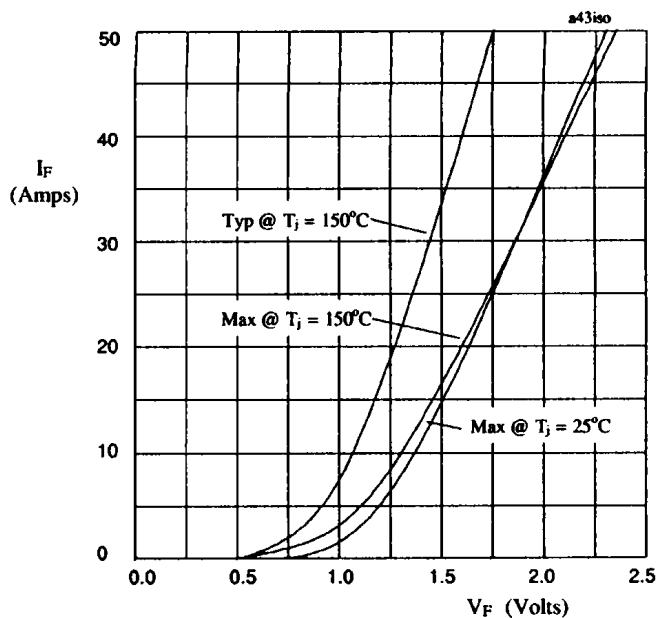


Figure 3. Forward voltage drop per leg as a function of forward current for SET121204.

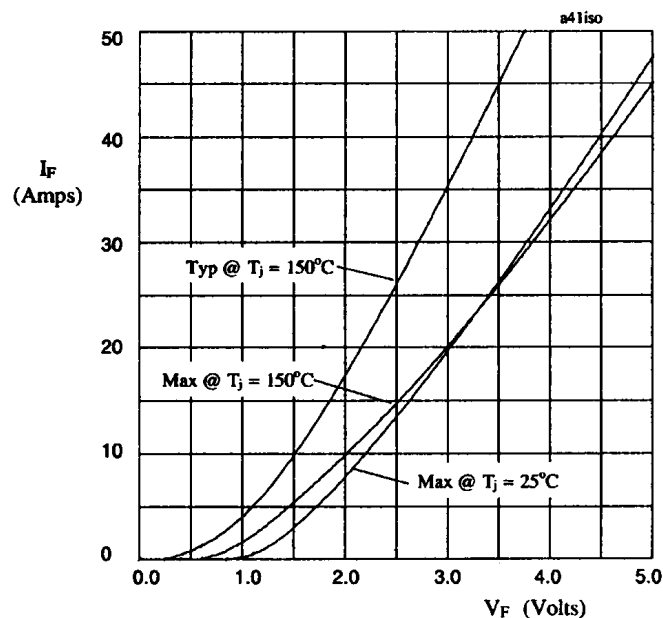


Figure 4. Forward voltage drop per leg as a function of forward current for SET121219.

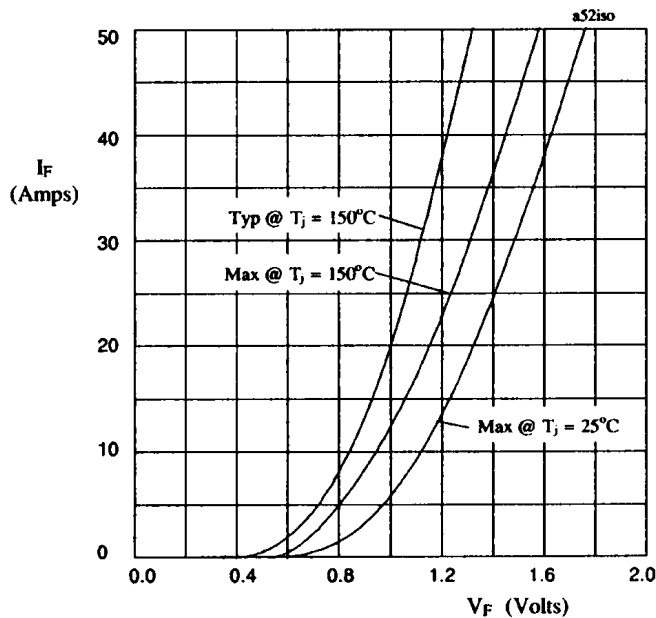


Figure 5. Forward voltage drop per leg as a function of forward current for SET121211.

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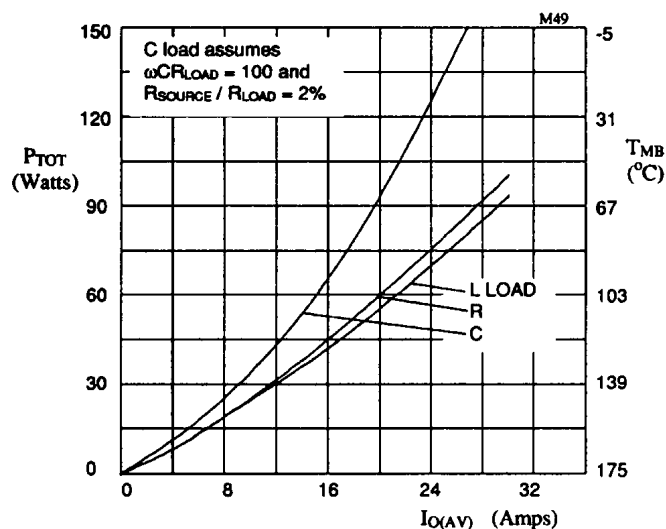


Figure 6. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121203 and SET121212.

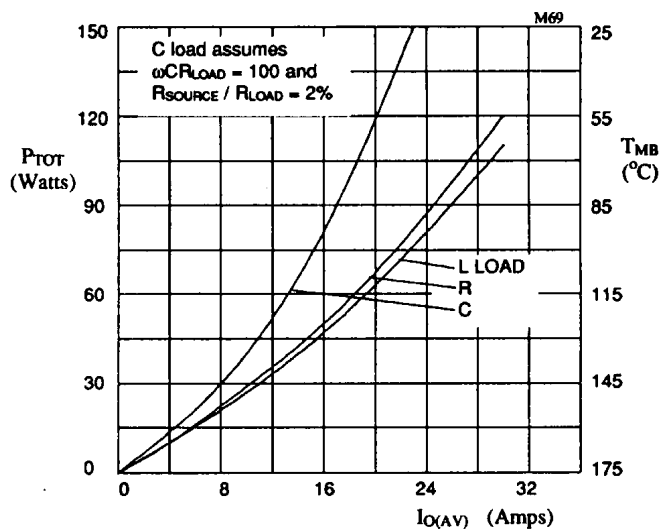


Figure 7. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121204.

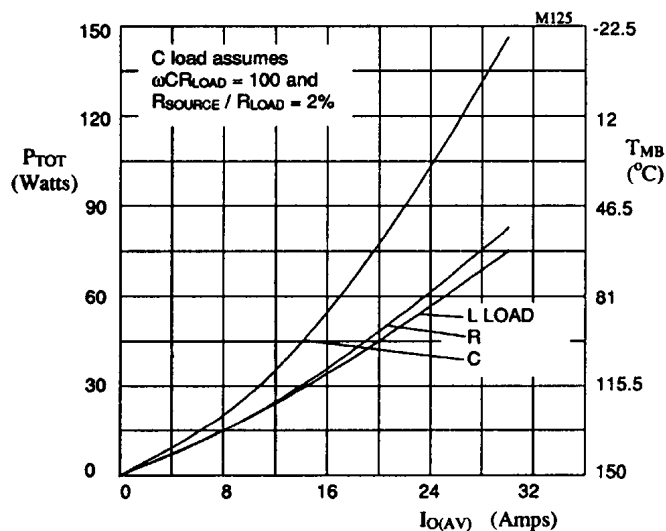


Figure 8. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121211.