HIGH CURRENT, 1-PHASE FULL WAVE BRIDGE ASSEMBLY

SET121203 SET121219 SET121212 SET121204 SET121211

January 29, 1998

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

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

QUICK REFERENCE DATA

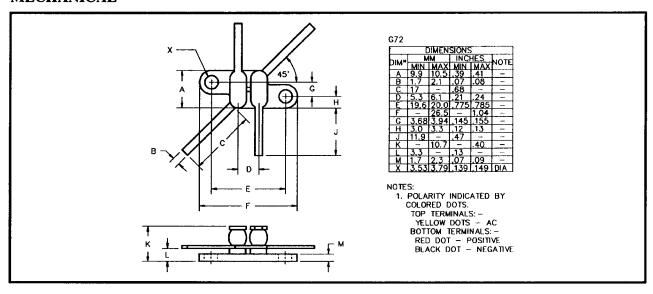
- V_{RWM} = 150V 1000V
- $I_0 = 30A$
- $t_{rr} = 30 \text{nS} 2 \mu \text{S}$
- I_{FSM} ≥ 150A

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	1 7 5	1 7 5	-55 to +150
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 $R_{\theta JMB} = 0.75^{\circ} C/W$

MECHANICAL

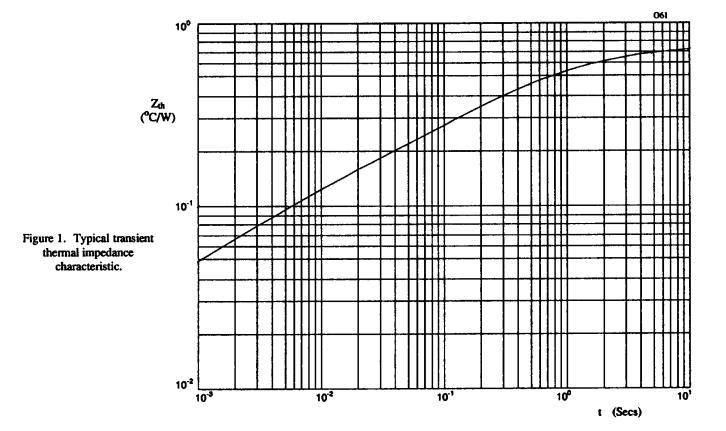


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ELECTRICAL CHARACTERISTICS

Device		n Leakage R @ VRWM	Maximum Forward Voltage	Maximum Reverse Recovery Time t _{rr} @ 25°C
Type	T _j = 25 °C	T _j = 100 °C	V _F @ 9A/leg @ 25℃	
	μА	μА	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

¹ Measured on discrete devices prior to assembly



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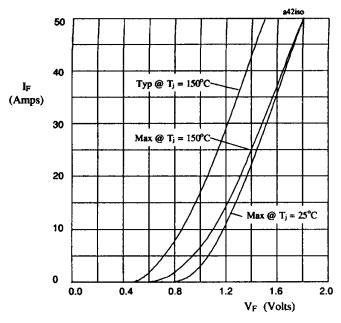


Figure 2. Forward voltage drop per leg as a function of forward current for SET121203 & SET121212.

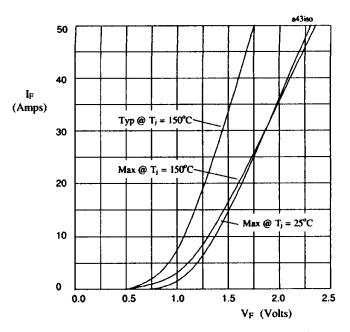


Figure 3. Forward voltage drop per leg as a function of forward current for SET121204.

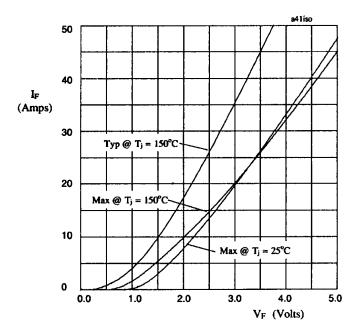


Figure 4. Forward voltage drop per leg as a function of forward current for SET121219.

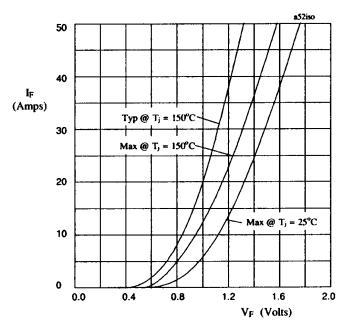


Figure 5. Forward voltage drop per leg as a function of forward current for SET121211.

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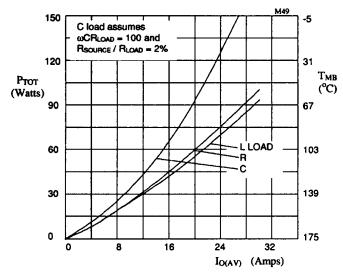


Figure 6. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121203 and SET121212.

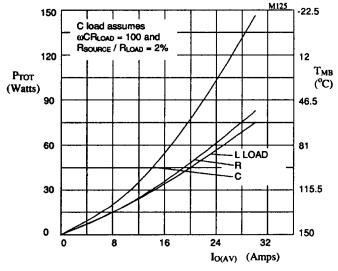


Figure 8. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121211.

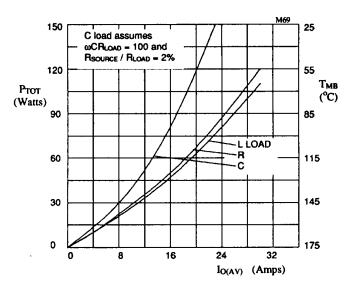


Figure 7. Forward power dissipation and maximum allowable mounting base temperature as a function of output current for sinusoidal operation, for SET121204.