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**HIGH CURRENT, HIGH DENSITY, ISOLATED,  
SILICON POWER RECTIFIER STUD**

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

**QUICK REFERENCE  
DATA**

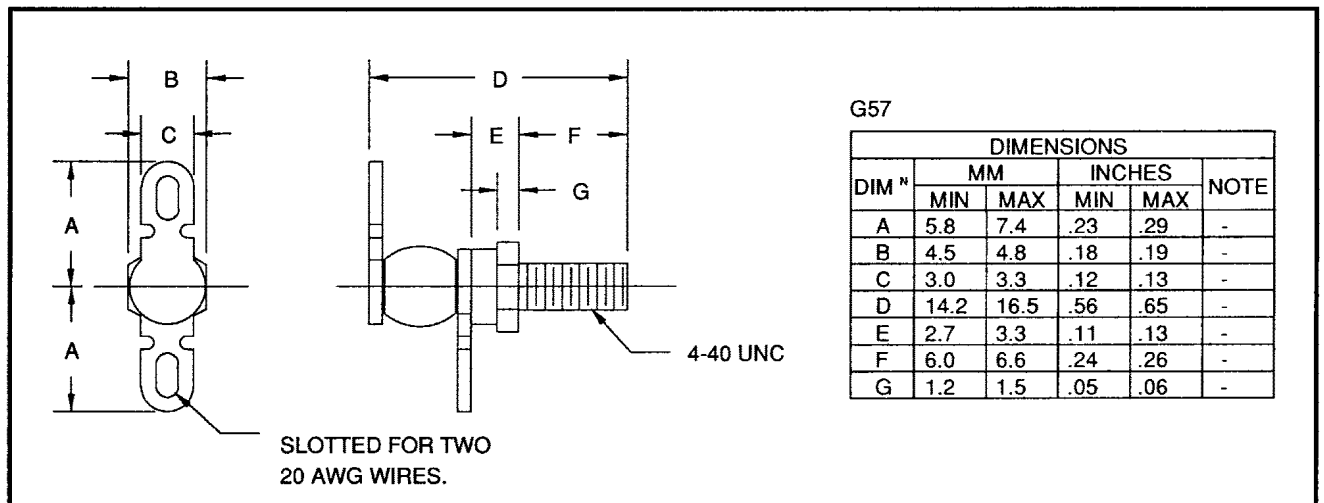
- $V_R = 150V - 1000V$
- $I_F = 15A$
- $t_{rr} = 30nS - 2\mu S$
- $I_{FSM} \geq 150A$

**ABSOLUTE MAXIMUM RATINGS**

Device Type	Working Reverse Voltage ( $V_{RWM}$ ) Volts	Average Rectified Current ( $I_{F(AV)}$ ) @ $T_{mb}$			1 Cycle Surge $I_{FSM}$ $t_p = 8.3mS$		Repetitive Surge ( $I_{FRM}$ )	Operating & Storage Temperature Range	
		@ 55°C	100°C	125°C	@ 25 °C	@ 100°C	@ 25 °C	( $T_{OP}$ )	( $T_{STG}$ )
		Amps	Amps	Amps	Amps	Amps	Amps	°C	
SET010203	1000	15	11	8	150	100	25	-55 to +175	
SET010219	1000	10	8	6	150	80	15	-55 to +175	
SET010212	600	15	11	8	150	100	25	-55 to +175	
SET010204	400	15	11	8	150	80	25	-55 to +175	
SET010211	150	15	10	7	175	175	24	-55 to +150	

$R_{\theta JMB} = 3^{\circ}C/W$  for all varieties, other configurations available see next page for details

**MECHANICAL**



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**ELECTRICAL CHARACTERISTICS**

Device Type	Maximum Leakage Current @ V <sub>RWM</sub>		Maximum Forward Voltage @ 9.0 A	Maximum Reverse Recovery Time
	T <sub>j</sub> = 25 °C	T <sub>j</sub> = 100 °C		
	μA	μA	Volts	nS
SET010203	1.0	20	1.2	2000
SET010219	1.0	25	2.2	150
SET010212	1.0	20	1.2	2000
SET010204	1.0	20	1.5	150
SET010211	10.0	500	1.1	30

**OTHER CONFIGURATIONS**

The Part Numbers Shown in this data Sheet are Isolated with the cathode at the stud end of the device. Part numbers for other configurations are shown below:

Isolated Cathode to Stud	Isolated Anode to Stud	Non-Isolated Cathode to Stud	Non-Isolated Anode to Stud
SET010203	SET010403	SET010103	SET010303
SET010219	SET010419	SET010119	SET010319
SET010212	SET010412	SET010112	SET010312
SET010204	SET010404	SET010104	SET010304
SET010211	SET010411	SET010111	SET010311

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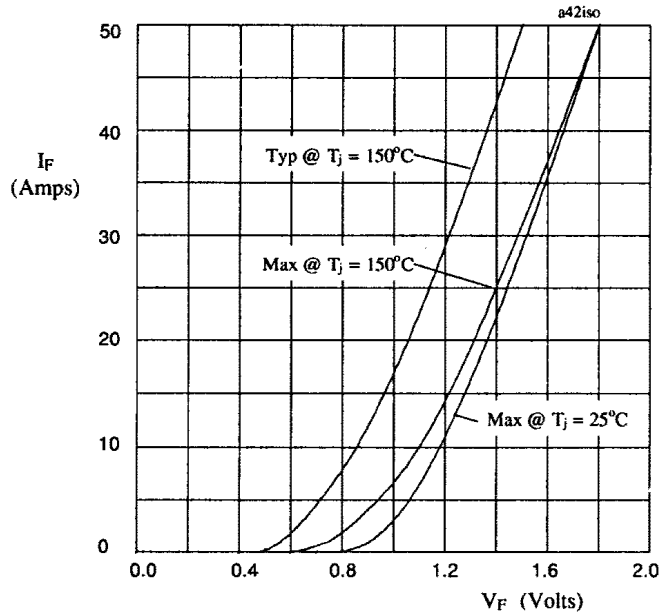


Figure 1. Forward voltage drop as a function of forward current for SET01\*\*03 & SET01\*\*12.

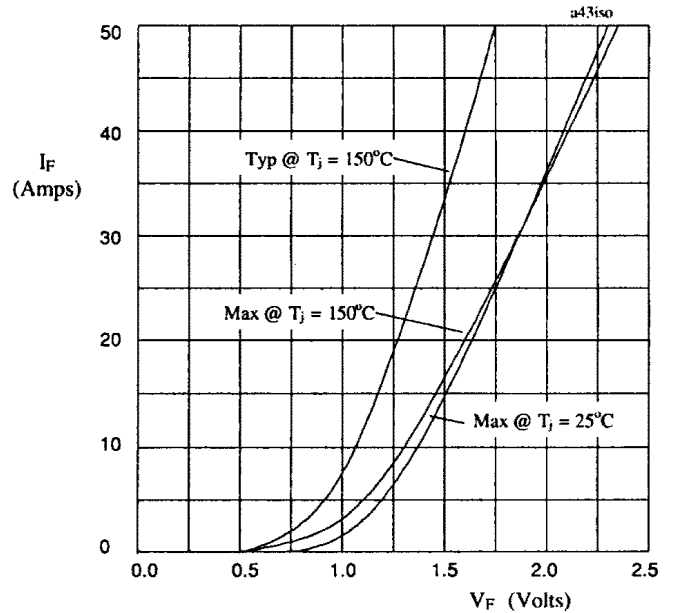


Figure 2. Forward voltage drop as a function of forward current for SET01\*\*04.

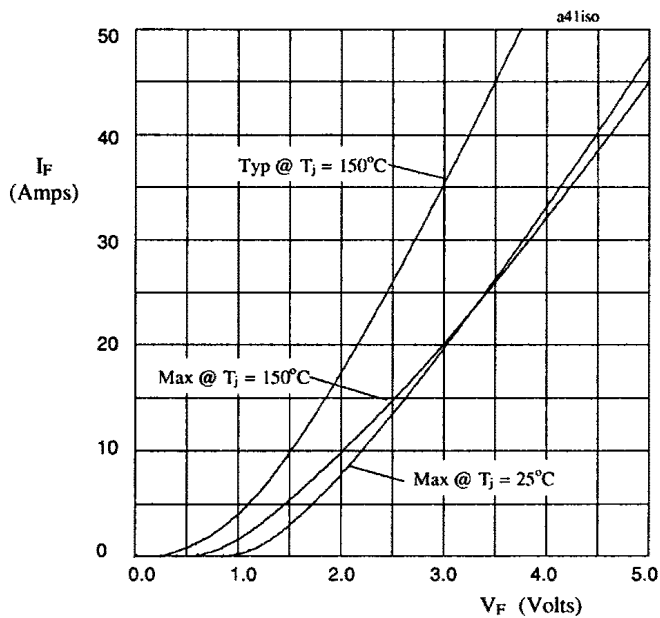


Figure 3. Forward voltage drop as a function of forward current for SET01\*\*19.

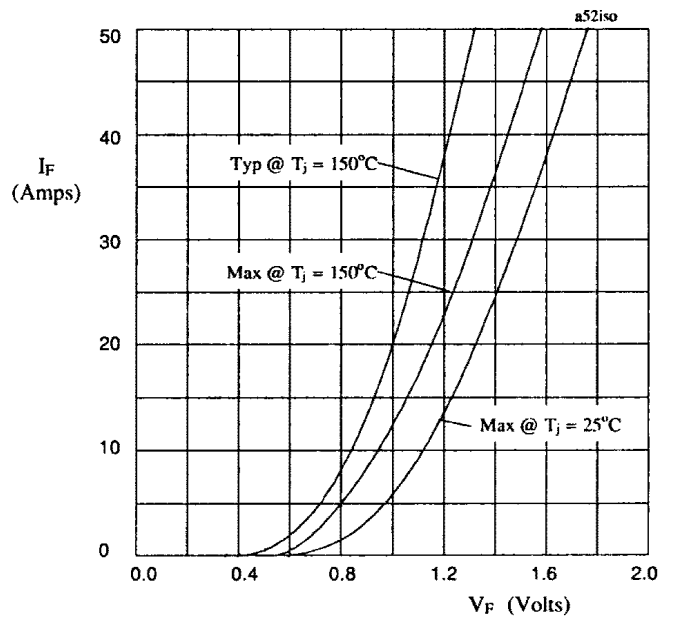


Figure 4. Forward voltage drop as a function of forward current for SET01\*\*11.

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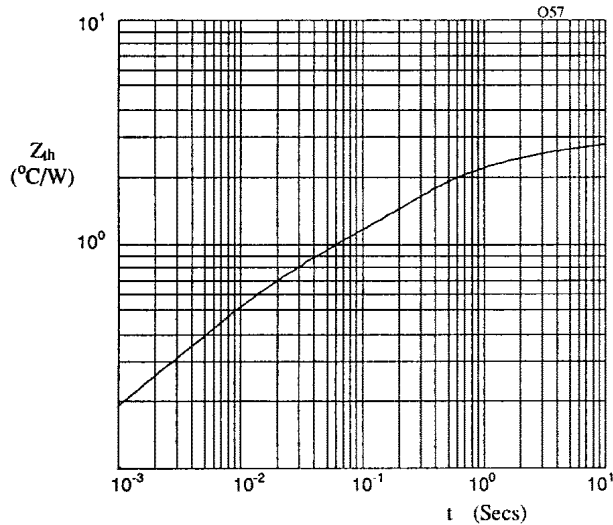


Figure 5. Typical transient thermal impedance characteristic.

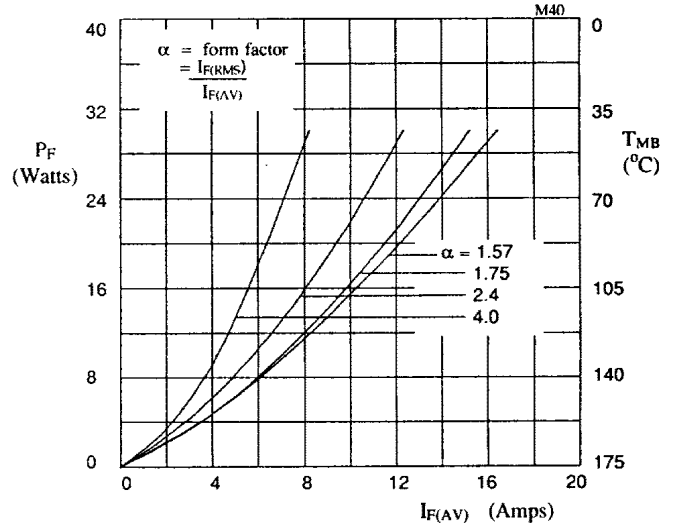


Figure 6. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for SET01\*\*03 and SET01\*\*12.

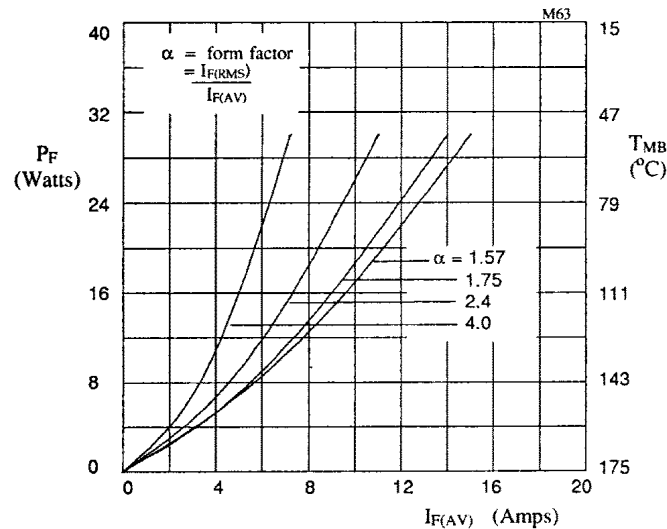


Figure 7. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for SET01\*\*04.

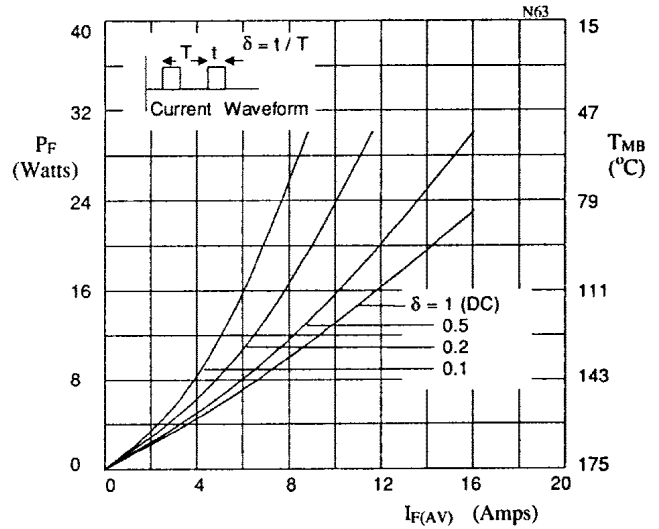


Figure 8. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for square wave operation, for SET01\*\*04

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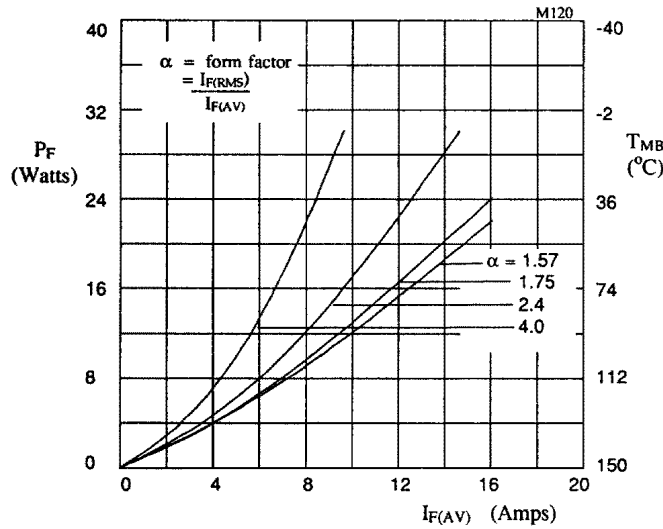


Figure 9. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for SET01\*\*11.

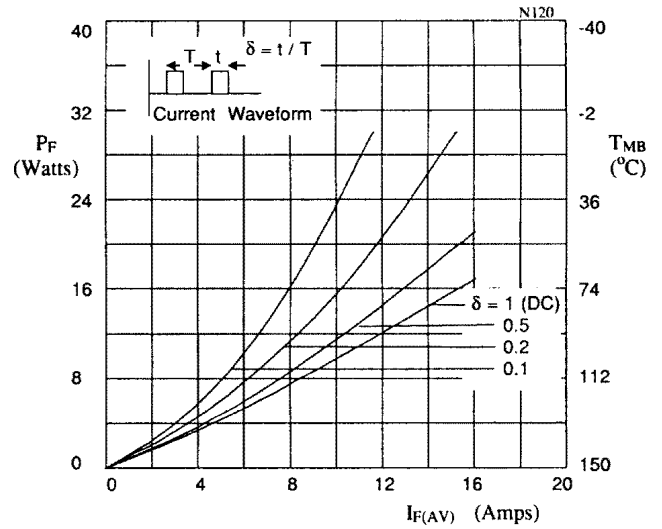


Figure 10. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for square wave operation, for SET01\*\*11.