January 16, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:http://www.semtech.com

FAST RECOVERY, HIGH CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Low reverse recovery time
- Low thermal impedance
- High forward and surge current ratings

QUICK REFERENCE DATA

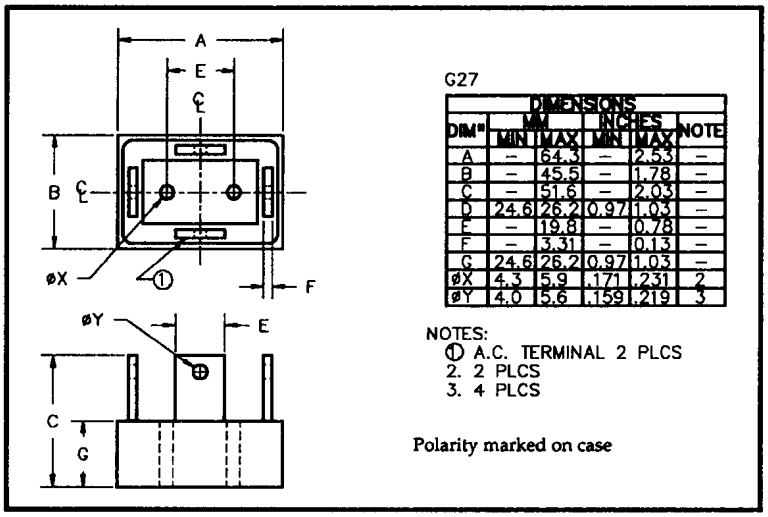
- V_R = 50V - 400V
- I_F = 65A
- I_R = 12 µA
- t_{rr} = 150nS

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$ (@ case temperature)			(@ ambient temperature)			1 Cycle Surge Current I_{FSM} t_p = 8.3mS		Repetitive Surge Current I_{FRM}
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	@ 25 °C
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCAS05F SCAS1F SCAS2F SCAS4F	50 100 200 400	65	43	30	16	11.5	7.2	750	480	120

$R_{\theta JC}$ = 0.4°C/W

MECHANICAL



G27

DIM"	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	–	64.3	–	2.53	–
B	–	45.5	–	1.78	–
C	–	51.6	–	2.03	–
D	24.6	26.2	0.97	1.03	–
E	–	19.8	–	0.78	–
F	–	3.31	–	0.13	–
G	24.6	26.2	0.97	1.03	–
øX	4.3	5.9	.171	.231	2
øY	4.0	5.6	.159	.219	3

NOTES:
① A.C. TERMINAL 2 PLCS
2. 2 PLCS
3. 4 PLCS

Polarity marked on case

© 1997 SEMTECH CORP.

January 16, 1998

ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage V_F @ 18A/leg	Reverse Recovery Time [1] t_{rr} @ 25°C	Maximum operating & storage temp. range. T_{OP} T_{STG}
	@ 25°C	@ 100°C			
	µA	µA	Volts	nS	°C
SCAS05F SCAS1F SCAS2F SCAS4F	12	300	1.1	150	-55 to +150

[1] Measured on discrete devices prior to assembly

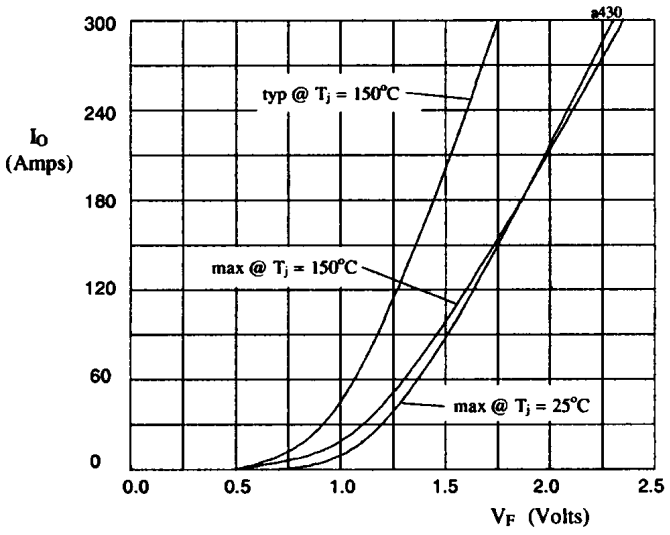


Fig 1. Forward voltage drop against output current per leg.

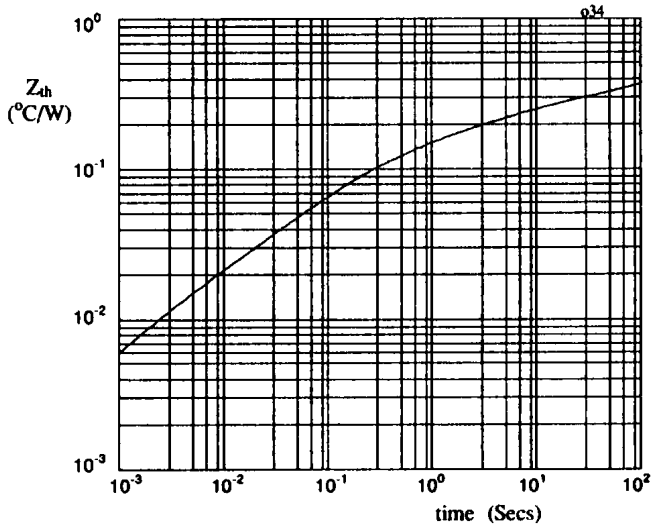


Fig 2. Transient thermal impedance characteristic per leg

© 1997 SEMTECH CORP.