

January 16, 1998

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

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

- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- High surge ratings

QUICK REFERENCE DATA

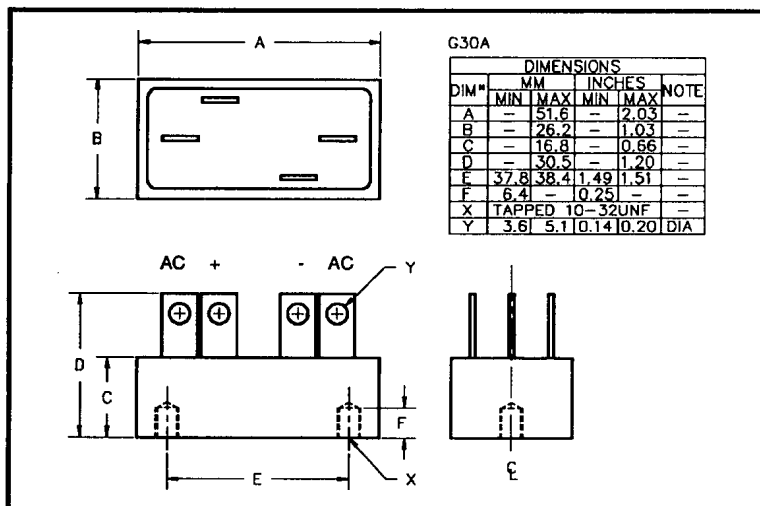
- $V_R = 50V - 600V$
- $I_F = 38A$
- $I_R = 8.0\mu A$
- $I_{FSM} = 500A$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_F(AV)$						1 Cycle Surge Current $I_{FSM} \ t_p = 8.3mS$		Repetitive Surge Current I_{FRM}
		(@ case temperature)			(@ ambient temperature)					
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	
SCBK05	50									
SCBK1	100									
SCBK2	200	38	24	17.5	13	10	6	500	325	80
SCBK4	400									
SCBK6	600									

$$R_{\theta JC} = 1.2^{\circ}C/W$$

MECHANICAL



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ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage V_F @ 12A/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	μS	°C
SCBK05 SCBK1 SCBK2 SCBK4 SCBK6	8.0	200	1.0	2.0	-55 to +150

¹ Measured on discrete devices prior to assembly

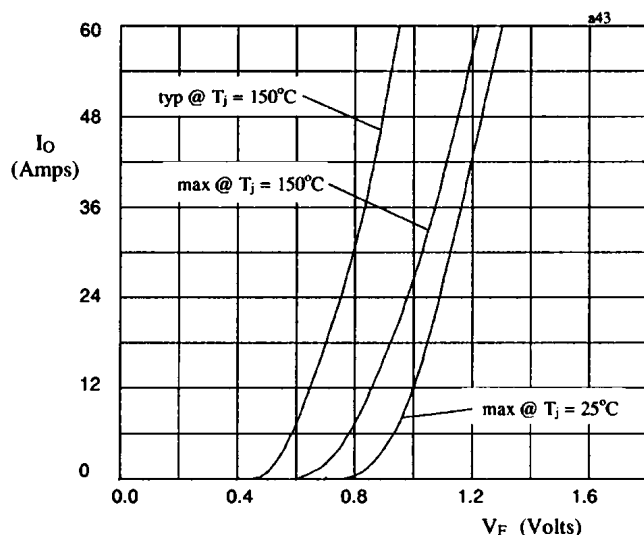


Fig 1. Forward voltage drop against output current per leg.

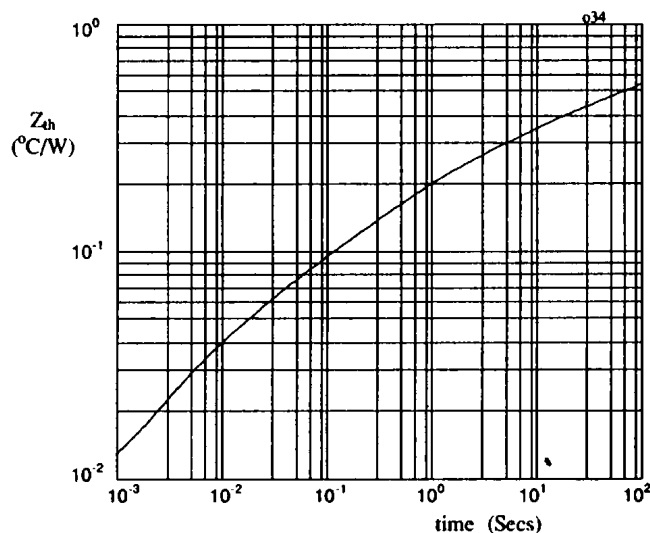


Fig 2. Transient thermal impedance characteristic per leg

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