

January 16, 1998

## 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

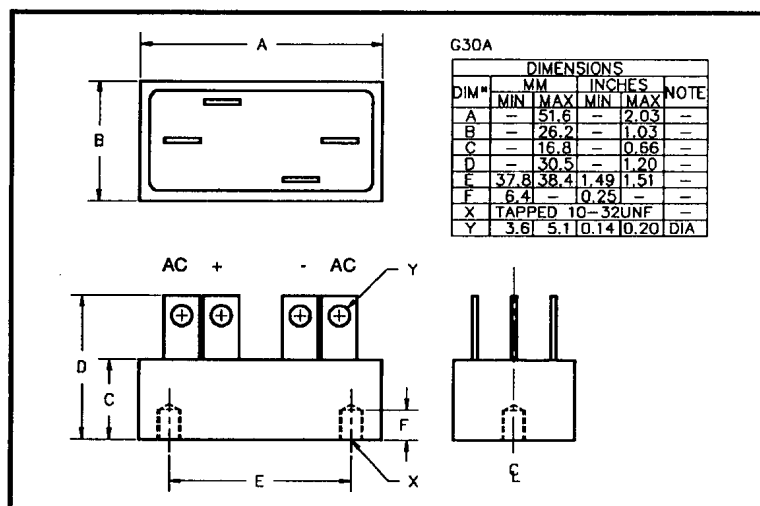
- $V_R = 50V - 600V$
- $I_F = 38A$
- $I_R = 8.0\mu A$
- $I_{FSM} = 500A$

## 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	@ 25°C
		Volts	Amps	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 <sup>1</sup> $t_{rr} @ 25^\circ C$	Maximum operating & storage temp. range. $T_{OP} T_{STG}$	
	@ 25°C	@ 100°C			°C	
	µA	µA	Volts	µS		
SCBK05 SCBK1 SCBK2 SCBK4 SCBK6	8.0	200	1.0	2.0	-55 to +150	

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

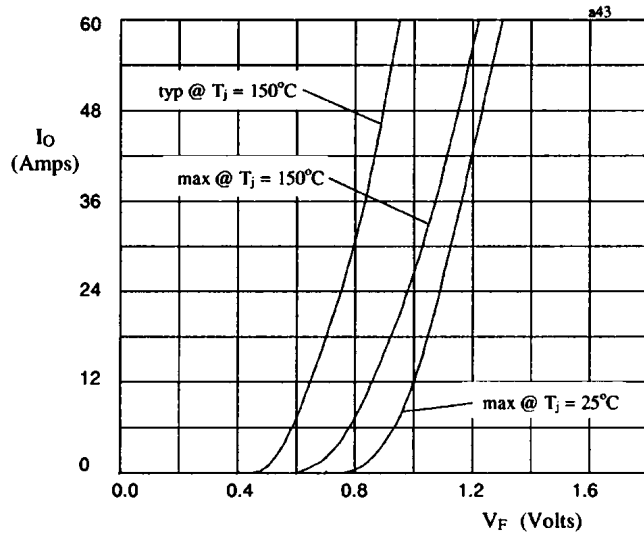


Fig 1. Forward voltage drop against output current per leg.

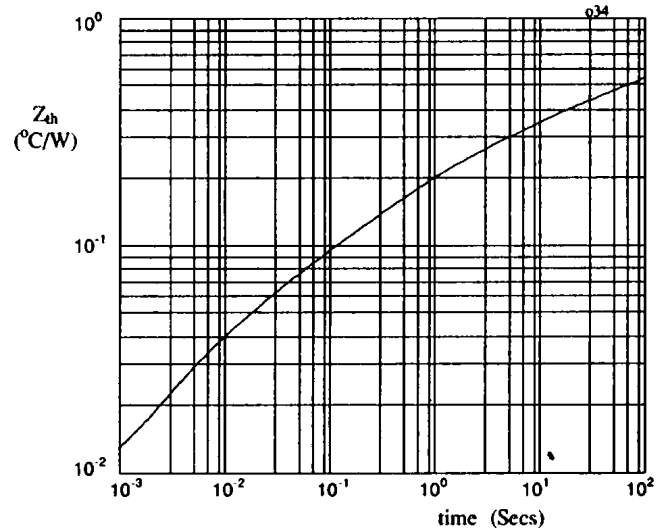


Fig 2. Transient thermal impedance characteristic per leg