

January 16, 1998

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

STANDARD RECOVERY, HIGH CURRENT 3-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

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

QUICK REFERENCE DATA

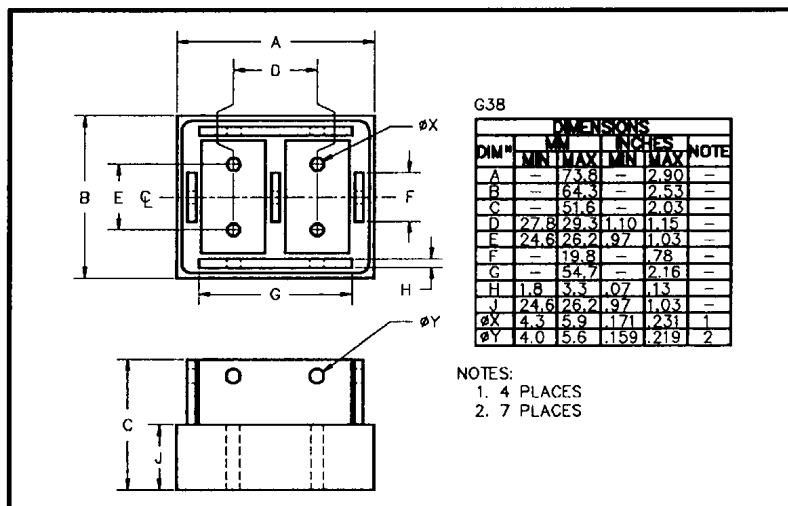
- $V_R = 50V - 600V$
- $I_F = 130A$
- $I_R = 18 \mu A$
- $I_{FSM} = 750A$

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	
		@ case temperature			@ ambient temperature			@ 25°C	@ 100°C
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C		
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SC3AS05	50								
SC3AS1	100								
SC3AS2	200	130	95	70	18	14	9	750	600
SC3AS4	400								
SC3AS6	600								

$$R_{\theta JC} = 0.3^{\circ}C/W$$

MECHANICAL



January 16, 1998

ELECTRICAL CHARACTERISTICS

Device Type	Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage V_F @ 18A/leg @ 25°C	Maximum Reverse Recovery Time t_{rr} @ 25°C	Maximum operating & storage temp range. T_{OP} T_{STG}
	@ 25°C	@ 100°C			
	μA	μA	Volts	μS	°C
SC3AS05 SC3AS1 SC3AS2 SC3AS4 SC3AS6	18.0	360	1.0	2.0	- 55 to +150

¹ Measured on discrete devices prior to assembly

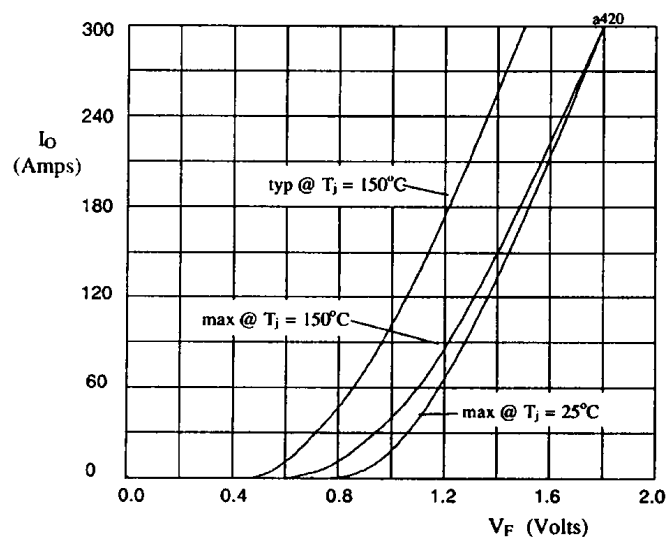


Fig 1. Forward voltage drop against output current per leg

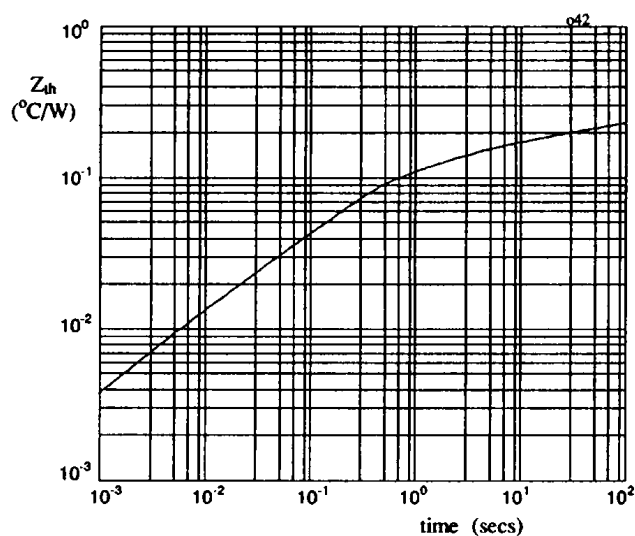


Fig 2. Transient thermal impedance characteristic per leg