

January 16, 1998

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

SUPERFAST RECOVERY, HIGH CURRENT 3-PHASE HALF WAVE BRIDGE RECTIFIER ASSEMBLIES

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

QUICK REFERENCE DATA

- $V_R = 50V - 150V$
- $I_F = 130A$
- $V_F = 0.97V$
- $t_{rr} = 30ns$

ABSOLUTE MAXIMUM RATINGS

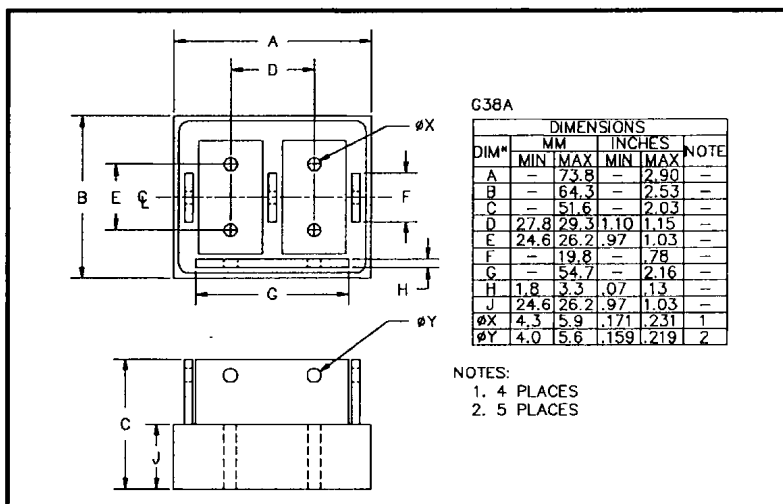
Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$						1 Cycle Surge Current $I_{FSM} @ t_p = 8.3ms$	
		@ case temperature			@ ambient temperature			@ 25°C	@ 100°C
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C		
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SC3HAS05FF*	50								
SC3HAS10FF*	100	130	80	45	18	12.5	8.0	750	600
SC3HAS15FF*	150								

$R_{\theta JC} = 0.6^{\circ}C/W$

Add suffix for desired circuit arrangement.

N = Common Anode, P = Common Cathode

MECHANICAL



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ELECTRICAL CHARACTERISTICS

Device Type	Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage /leg V_F @ 30A @ 25°C	Maximum Reverse Recovery Time t_{rr} @ 25°C	Maximum operating & storage temp range. T_{OP} T_{STG}
	@ 25°C	@ 100°C			
	μA	mA	Volts	μS	°C
SC3AS05FF* SC3AS10FF* SC3AS15FF*	60	3.0	0.97	30	-55 to +150

¹ Measured on discrete devices prior to assembly

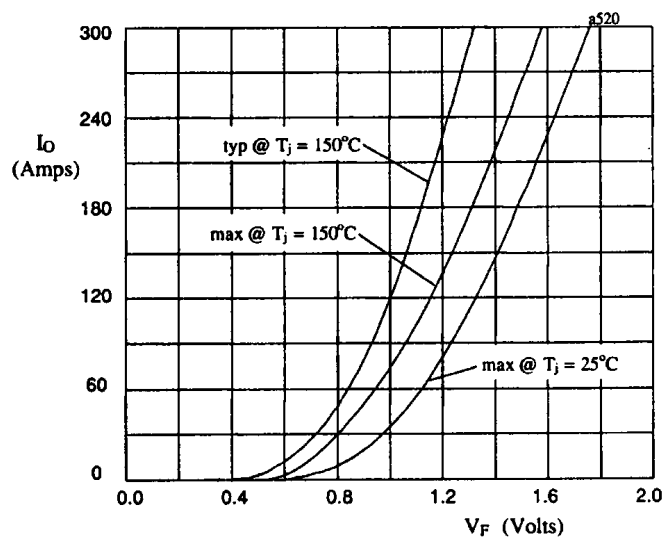


Fig 1. Forward voltage drop against output current per leg

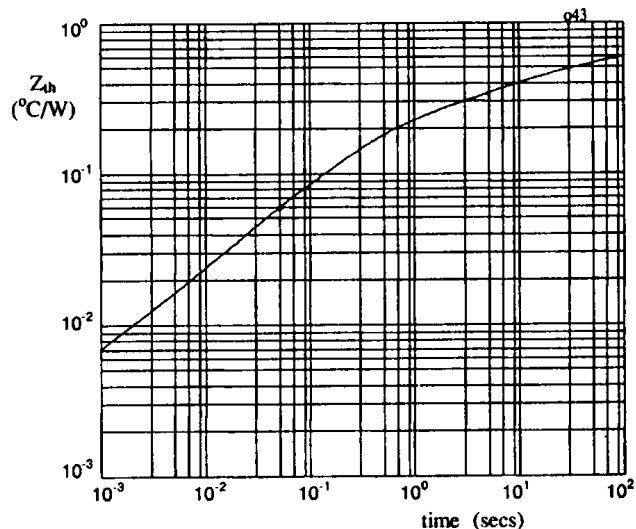


Fig 2. Transient thermal impedance characteristic per leg