

January 16, 1998

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## SUPERFAST RECOVERY, MEDIUM CURRENT 3-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

## QUICK REFERENCE DATA

- Very fast reverse recovery time
- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance

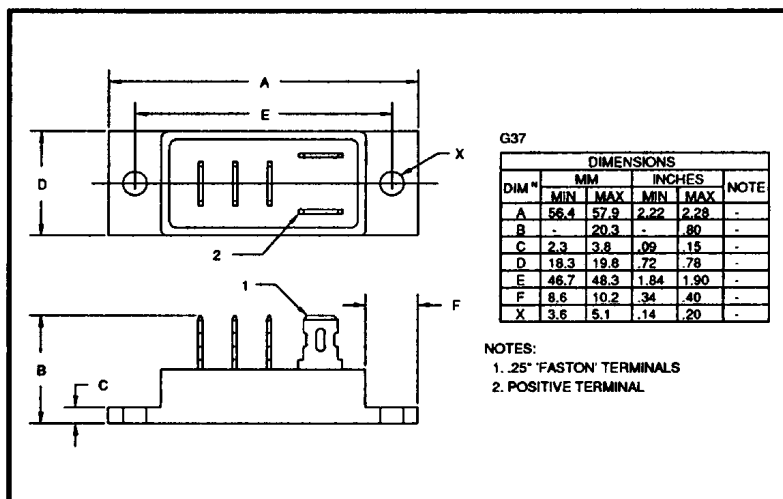
- $V_R = 50V - 150V$
- $I_F = 17A$
- $V_F = 0.97V$
- $t_{rr} = 30nS$

## 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
SC3BA05FF	50								
SC3BA10FF	100	17	10	5	6	5	3	175	120
SC3BA15FF	150								

$$R_{\theta JC} = 2.5^{\circ}C/W$$

## MECHANICAL



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### ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current $I_R$ @ $V_{RWM}$		Maximum Forward Voltage $V_F$ @ 5A/leg @ 25°C	Maximum Reverse Recovery Time $t_{rr}$ @ 25°C	Maximum operating & storage temp range. $T_{OP}$ $T_{STG}$
	@ 25°C	@ 100°C			
	$\mu A$	mA			
SC3BA05FF SC3BA10FF SC3BA15FF	30	1.5	0.97	30	- 55 to +150

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

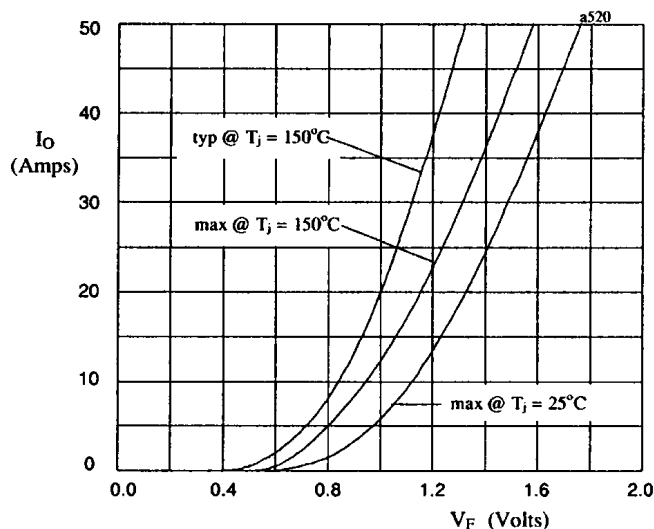


Fig 1. Forward voltage drop against output current per leg

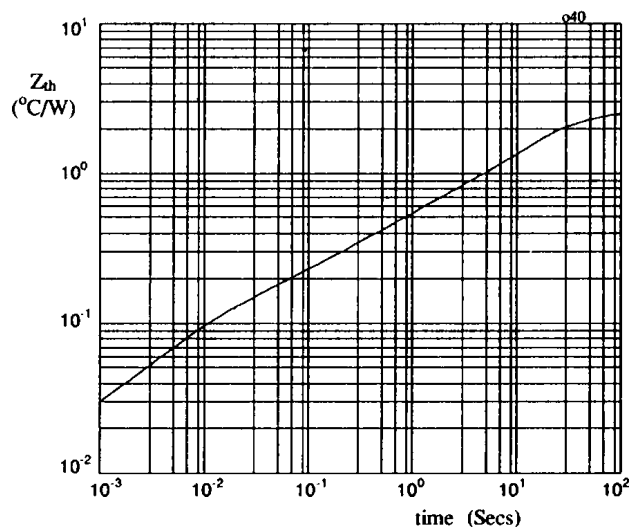


Fig 2. Transient thermal impedance characteristic per leg

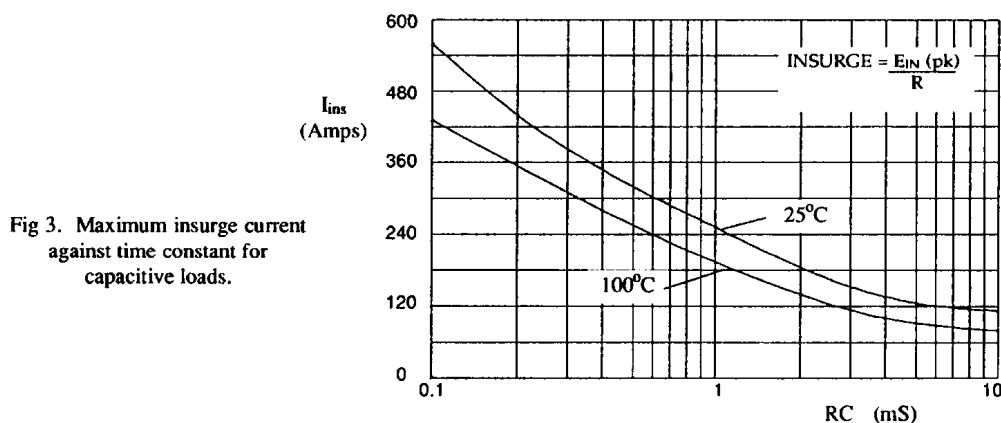


Fig 3. Maximum surge current against time constant for capacitive loads.

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