January 16, 1998

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

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

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

QUICK REFERENCE DATA

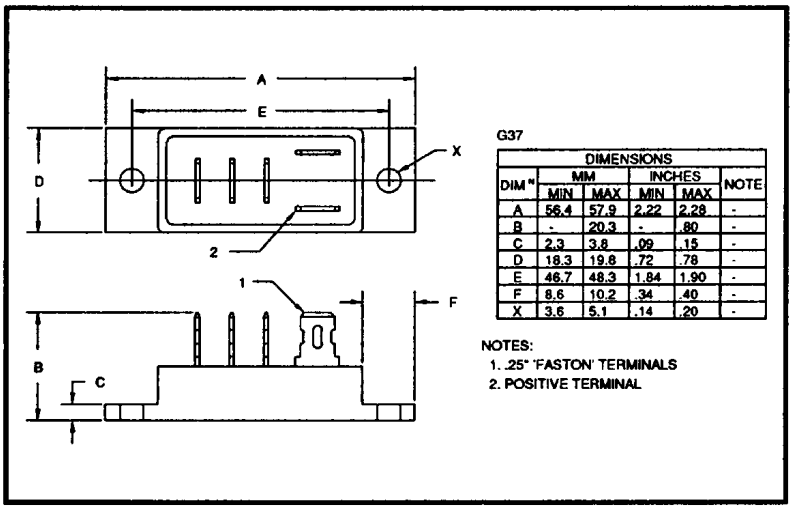
- V_R = 50V - 150V
- I_F = 17A
- V_F = 0.97V
- t_{rr} = 30nS

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

$R_{\theta JC}$ = 2.5°C/W

MECHANICAL



G37

DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	56.4	57.9	2.22	2.28	-
B	-	20.3	-	.80	-
C	2.3	3.8	.09	.15	-
D	18.3	19.8	.72	.78	-
E	46.7	48.3	1.84	1.90	-
F	8.6	10.2	.34	.40	-
X	3.6	5.1	.14	.20	-

NOTES:
1. .25" 'FASTON' TERMINALS
2. POSITIVE TERMINAL

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ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 25°C	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 100°C	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}
	µA	mA	Volts	nS	°C
SC3BA05FF SC3BA10FF SC3BA15FF	30	1.5	0.97	30	- 55 to +150

[1] Measured on discrete devices prior to assembly

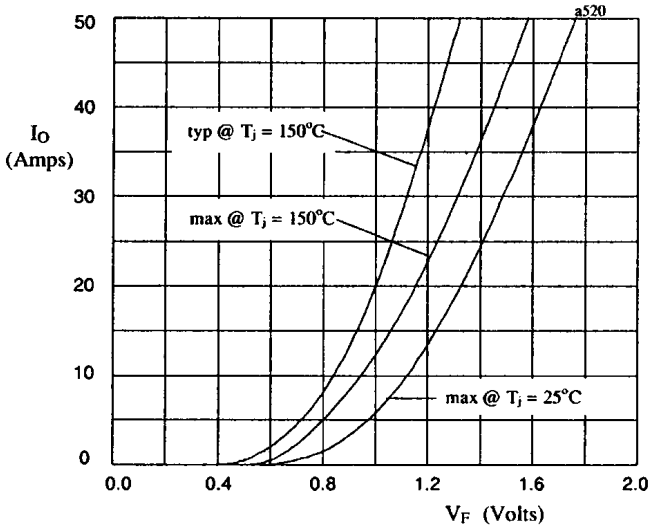


Fig 1. Forward voltage drop against output current per leg

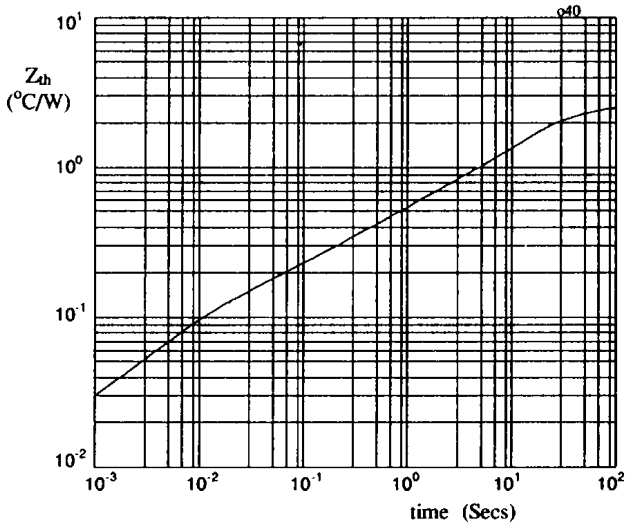


Fig 2. Transient thermal impedance characteristic per leg

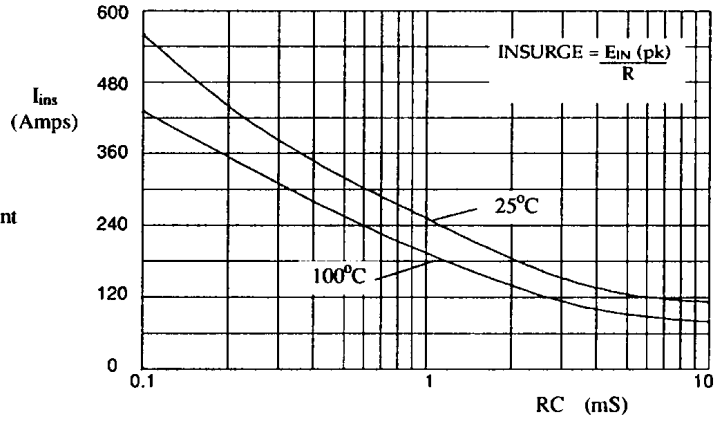


Fig 3. Maximum insurge current against time constant for capacitive loads.

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