

January 16, 1998

**SUPERFAST RECOVERY, LOW 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

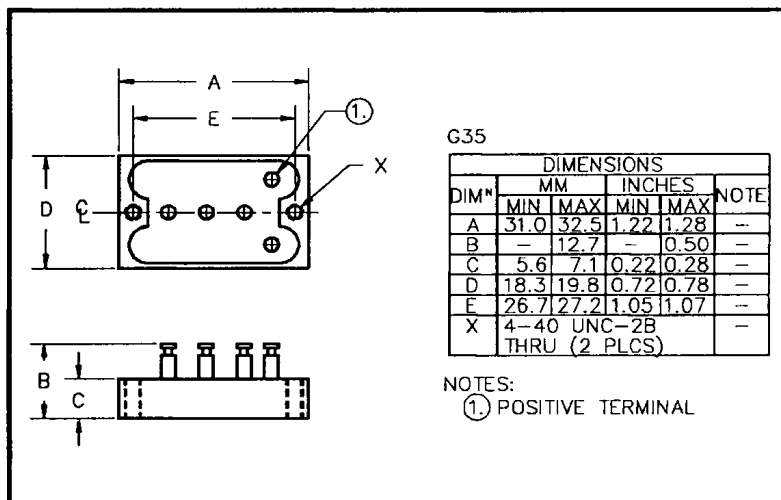
- $V_R = 50V - 150V$
- $I_F = 12A$
- $V_F = 0.97V$
- $t_{rr} = 30nS$

**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	@ 25°C	@ 100°C
		Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SC3BH05FF	50								
SC3BH10FF	100	12	9	7.5	4.0	3.0	1.7	175	120
SC3BH15FF	150								

$R_{\theta JC} = 4.5^\circ C/W$

**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.	
	@ 25°C	@ 100°C			$T_{OP}$	$T_{STC}$
	µA	mA	Volts	nS	°C	
SC3BH05FF					- 55	
SC3BH10FF	30	1.50	0.97	30	to	
SC3BH15FF					+150	

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

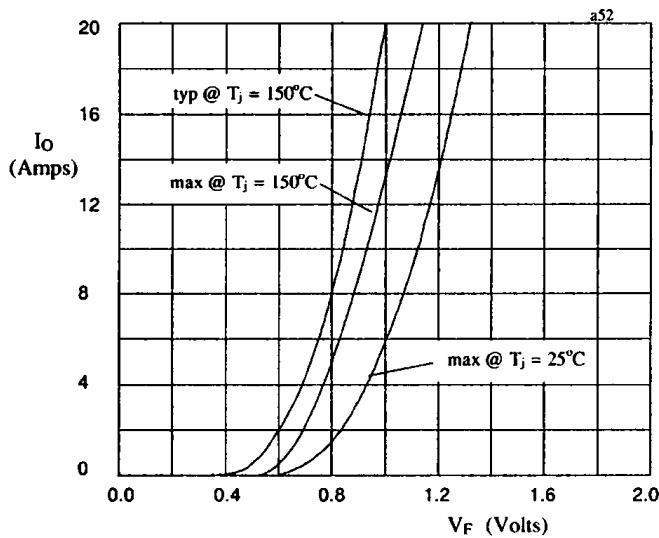


Fig 1. Forward voltage drop against output current per leg

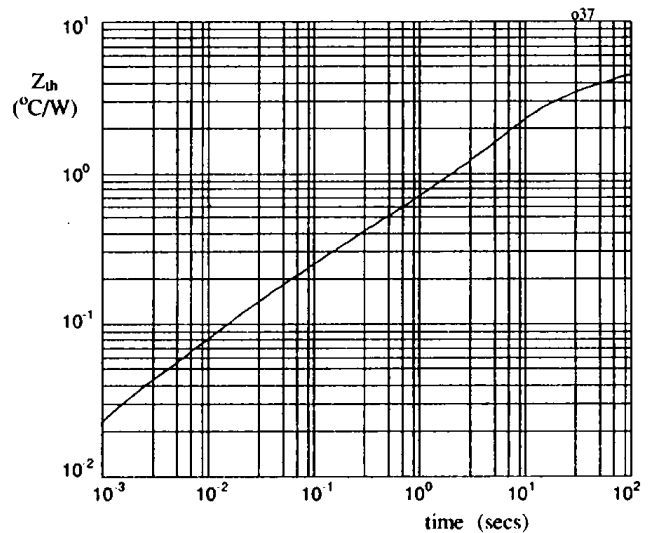


Fig 2. Transient thermal impedance characteristic per leg

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

