

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

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

**QUICK REFERENCE  
DATA**

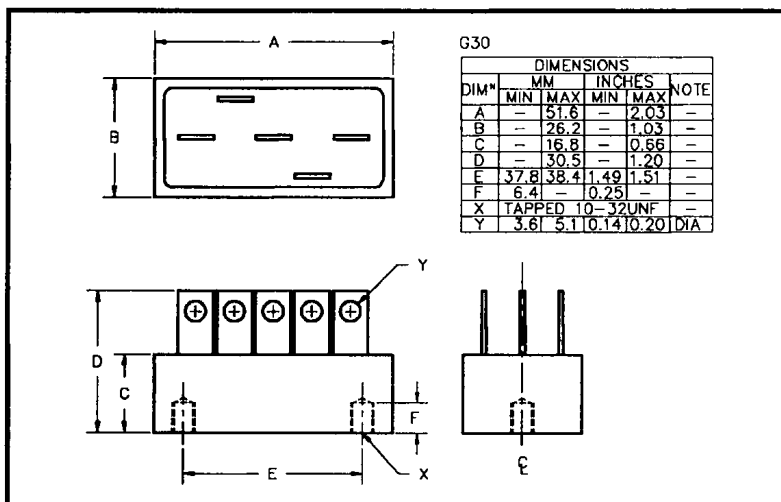
- $V_R = 50V - 150V$
- $I_F = 38A$
- $V_F = 0.97V$
- $t_{rr} = 30nS$

**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	
SC3BK05FF	50								
SC3BK10FF	100	38	25	14	13	9.25	5.5	450	360
SC3BK15FF	150								

$R_{\theta JC} = 1.1^{\circ}C/W$

**MECHANICAL**



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**ELECTRICAL CHARACTERISTICS**

Device Type	Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Forward Voltage $V_F @ 15A/leg$	Maximum Reverse Recovery Time <sup>1</sup> $t_{rr} @ 25^\circ C$	Maximum operating & storage temp. range	
	@ 25°C	@ 100°C			$T_{OP}$	$T_{STG}$
	$\mu A$	mA	Volts	ns	°C	
SC3BK05FF SC3BK10FF SC3BK15FF	90	4.5	0.97	30	-55 to +150	

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

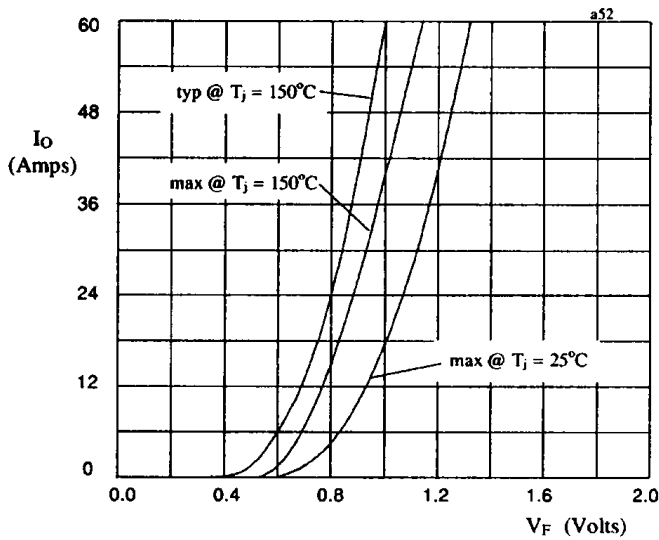


Fig 1. Forward voltage drop against output current per leg

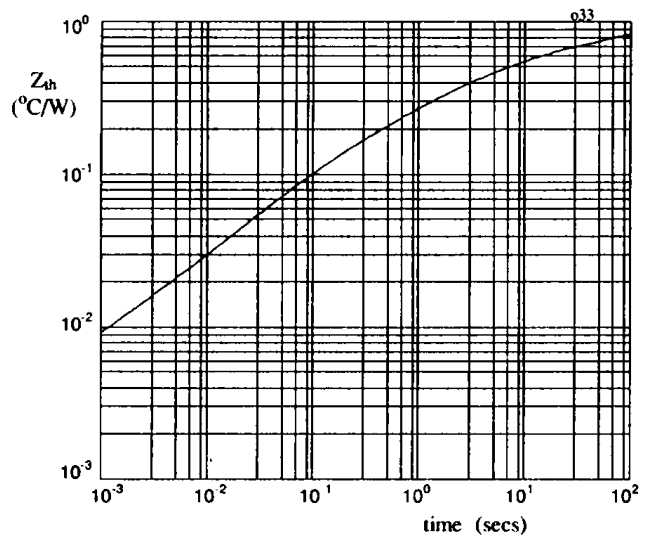


Fig 2. Typical transient thermal impedance characteristic per leg