

SEMTECH

**FAST RECOVERY 3-PHASE
SILICON BRIDGE RECTIFIERS**

**S3BR05F S3BR1F
S3BR2F S3BR4F
S3BR6F S3BR25F**

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**FAST RECOVERY, LOW CURRENT 3-PHASE FULL
WAVE BRIDGE RECTIFIER ASSEMBLIES**

- Low forward voltage drop
- Low reverse leakage current
- Subminiature design
- V_{RWM} up to 2500V
- PCB mounting

**QUICK REFERENCE
DATA**

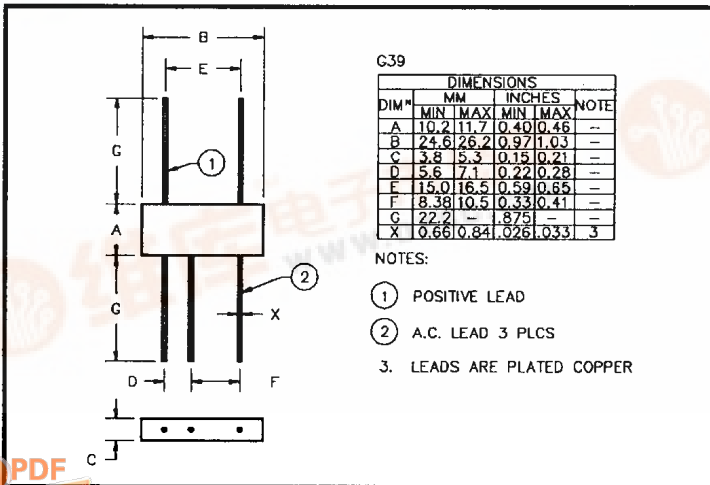
- $V_R = 50V - 2500V$
- $I_F = 0.5 - 2.0A$
- $I_R = 3.0\mu A$
- $t_{rr} = 150 - 300nS$

ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$	
		@ 55 °C	@ 100 °C
	Volts	Amps	Amps
S3BR05F	50	2.0	1.2
S3BR1F	100	2.0	1.2
S3BR2F	200	2.0	1.2
S3BR4F	400	2.0	1.2
S3BR6F	600	2.0	1.2
S3BR25F	2500	0.5	0.3

Reverse Leakage Current $I_R @ V_{RWM}$		Forward Voltage drop / leg @ 25°C $V_F @ 1A$ * @ 100mA	Reverse Recovery Time t_{rr} @ 25°C
@ 25 °C	@ 100 °C		
μA	μA	Volts	μS
3.0	75	1.2	150
3.0	75	1.2	150
3.0	75	1.2	150
3.0	75	1.2	150
3.0	75	1.2	250
3.0	75	* 5.0	300

MECHANICAL



¹ Measured on discrete devices prior to assembly

S3BR4F is available in Europe to DEF STAN 59-61/90/208 release to F and FX levels.



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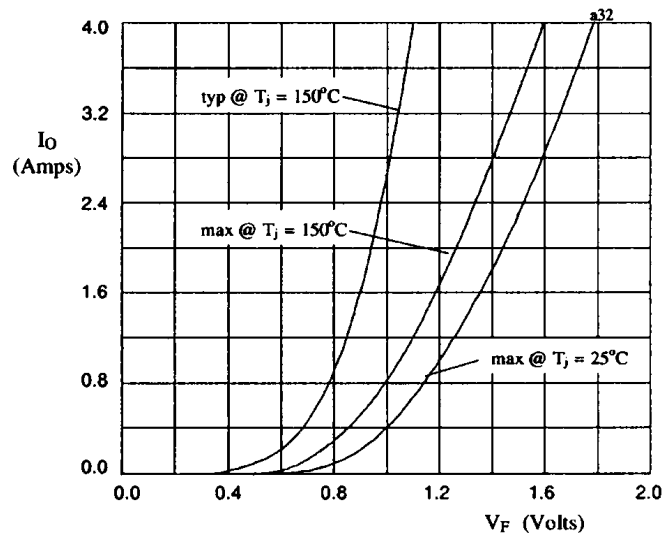


Fig 1. Forward voltage drop against output current per leg for S3BR05F thru S3BR6F.

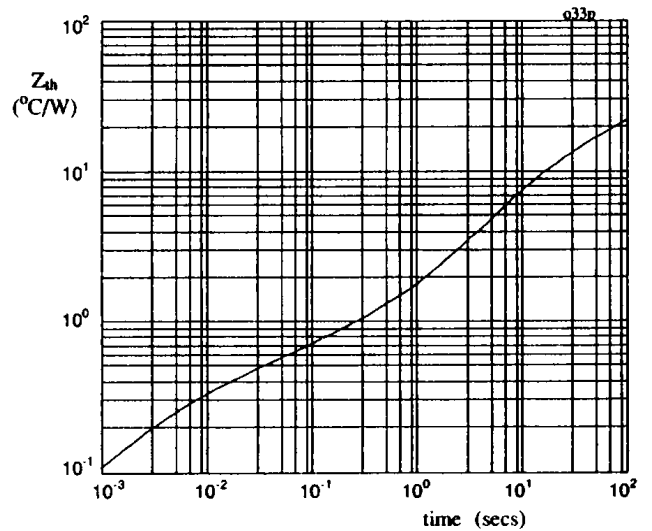


Fig 2. Transient thermal impedance characteristic per leg for S3BR05F thru S3BR6F

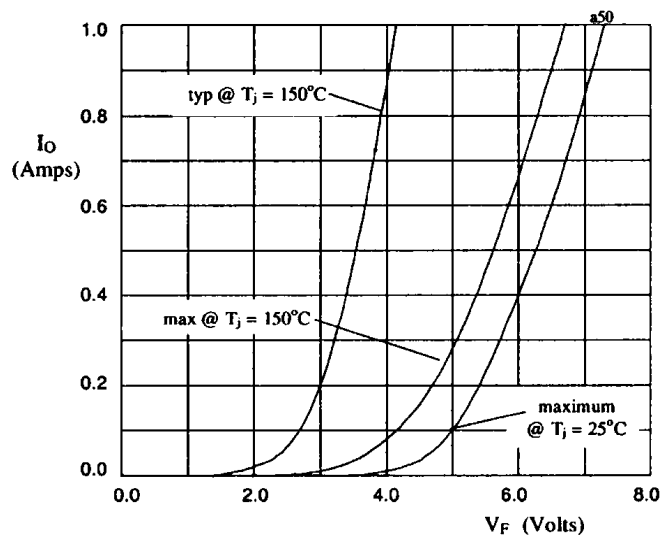


Fig 3. Forward voltage drop against output current per leg for S3BR25F.

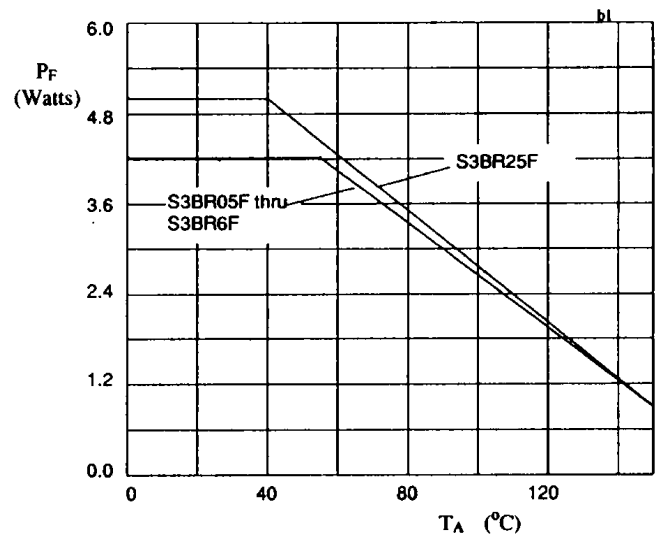


Fig 4. Power derating characteristics when p.c.b mounted