

January 16, 1998

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

SUPERFAST RECOVERY, HIGH CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

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

QUICK REFERENCE DATA

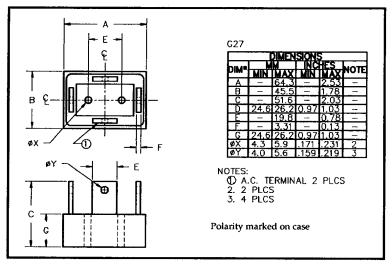
- $V_R = 50V 150V$
- I_F = 70A
- V_F = 0.97V
- t_{rr} = 30nS

Device Type	Working Reverse Voltage V _{RWM}	Average Rectified Current IF(AV) (@ case temperature) (@ ambient temperature)					1 Cycle Surge Current I _{FSM} t _p = 8.3mS		Surge Current	
		@ 55°C @ 100°C		@ 125°C @ 25°C		@ 55°C @ 100°C		@ 25°C @ 100°C		I _{FRM} @ 25 ℃
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCAS05FF SCAS10FF SCAS15FF	50 100 150	70	48	35	18	12.5	8.0	900	750	125

ABSOLUTE MAXIMUM RATINGS

 $R_{\theta JC} = 0.4^{\circ}C/W$

MECHANICAL



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Device	Leakage	n Reverse Current V _{RWM}	Maximum Forward Voltage	Reverse Recovery Time ¹	Maximum operating & storage temp. range.	
Туре	@ 25°C @ 100°C		V _F @ 30A/leg	t п @ 25°С	TOP TSTG	
	μA	mA	Volts	nS	°C	
SCAS05FF SCAS10FF SCAS15FF	120	6.0	0.97	30	-55 to +150	

ELECTRICAL CHARACTERISTICS

¹ Measured on discrete devices prior to assembly

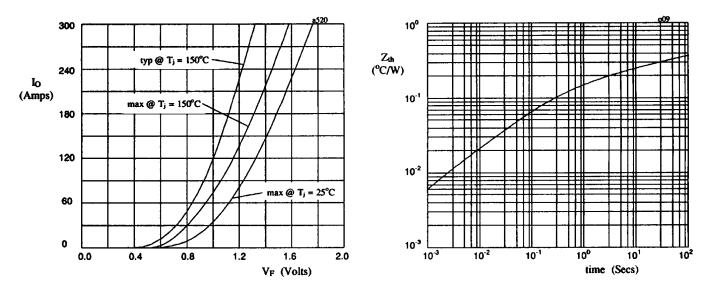


Fig 1. Forward voltage drop against output current per leg.

Fig 2. Transient thermal impedance characteristic per leg