January 9, 1998

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

SUPERFAST RECOVERY, HIGH CURRENT CENTER TAP AND DOUBLER RECTIFIER ASSEMBLIES

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

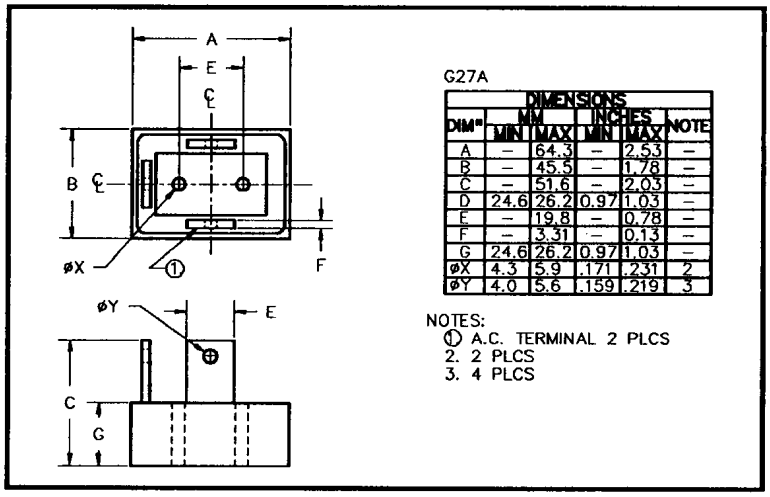
QUICK REFERENCE DATA

- V_R = 50V - 150V
- I_F = 85A
- t_{rr} = 30nS
- V_F = 0.97V

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current (@ case temperature)			1 Cycle Surge Current t_p = 8.3mS		Repetitive Surge Current
		@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	@ 25°C
	Volts	Amps	Amps	Amps	Amps	Amps	Amps
SCDAS05FF SCDAS10FF SCDAS15FF	50 100 150	42.5	35	22.5	900	700	135
SCNAS05FF SCNAS10FF SCNAS15FF	50 100 150	85	70	45	900	700	135
SCPAS05FF SCPAS10FF SCPAS15FF	50 100 150	85	70	45	900	700	135

MECHANICAL



Maximum thermal impedance
$R_{\theta JC}$ = 0.80°C/W

Approximate mass = 245g

January 9, 1998

ELECTRICAL CHARACTERISTICS (ratings apply per leg)

Device Type	Reverse Current @ V_{RWM}		Maximum Forward Voltage V_F @ 30A @ 25°C	Maximum Reverse Recovery Time [1]
	@ 25 °C	@ 100 °C		
	µA	µA	Volts	nS
SCDAS05FF SCDAS10FF SCDAS15FF	60	3.0	0.97	↑
SCNAS05FF SCNAS10FF SCNAS15FF	60	3.0	0.97	30
SCPAS05FF SCPAS10FF SCPAS15FF	60	3.0	0.97	↓

[1] Measured on discrete devices prior to assembly

Operating temperature range -55 °C to +150 °C
Storage temperature range -55 °C to +150 °C

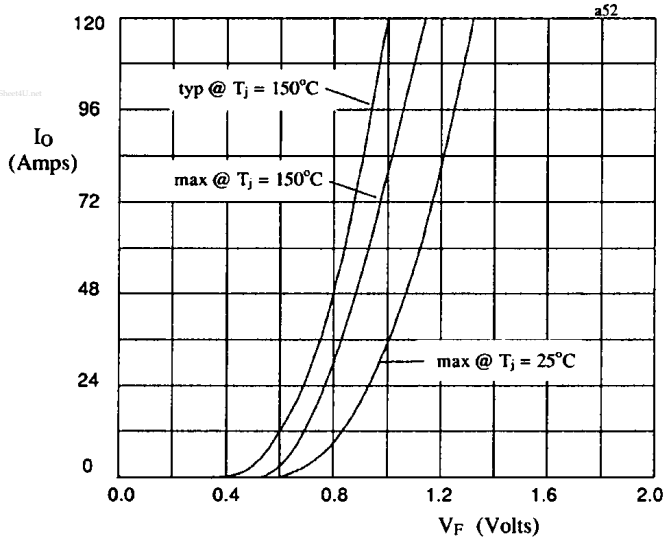


Fig 1. Forward voltage drop against current (per leg)

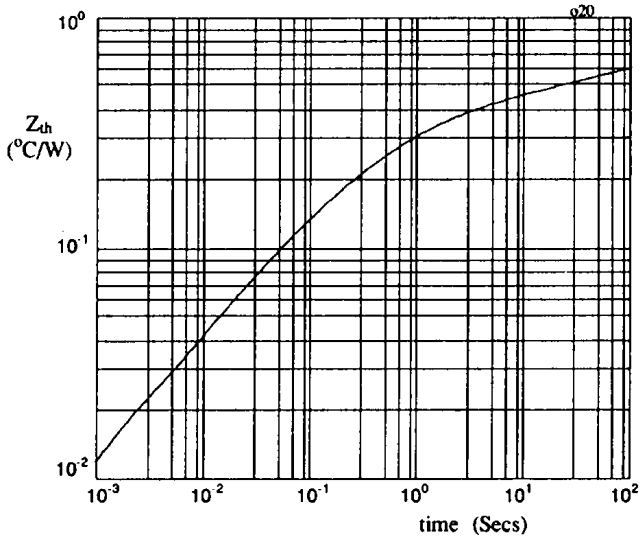


Fig 2. Transient thermal impedance characteristic per leg