



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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December 22, 1997

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HIGH CURRENT, HIGH DENSITY, SUPERFAST RECOVERY SILICON POWER RECTIFIER STUD

QUICK REFERENCE DATA

- Very low reverse recovery time
- Low thermal impedance
- Low forward voltage drop
- High forward current applications
- High forward surge ratings

- $V_R = 50V - 150V$
- $I_F = 150A$
- $t_{rr} = 30nS$
- $I_{FSM} = 1800A$

ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS

Device Type *	Working Reverse Voltage (V_{RWM}) Volts	Average Rectified Current $I_{F(AV)}$					1 Cycle Surge Current $t_p = 8.3mS$ I_{FSM}		Repetitive Surge Current I_{FRM} Amps
		insert mounting			stud mounting	stud + insert mounting	@ 25°C	@ 100°C	
		@ 25°C	@ 55°C	@ 100°C	@ 55°C	@ 55°C	@ 25°C	@ 100°C	
SCSFF05	50	↑	↑	↑	↑	↑	↑	↑	↑
SCSFF10	100	150	130	85	105	190	1800	930	240
SCSFF15	150	↓	↓	↓	↓	↓	↓	↓	↓

Normal polarity is cathode to stud

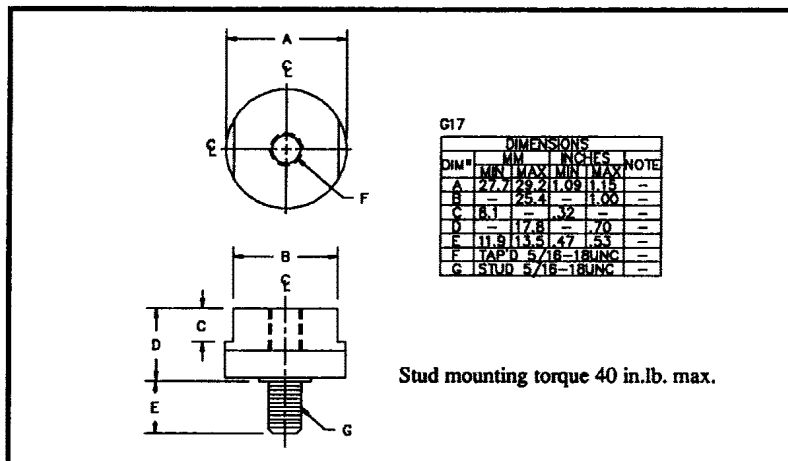
* add suffix "R" to part number for reverse polarity

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

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

Device Type	Reverse Leakage Current $I_R @ V_{RWM}$		Forward Voltage $V_F @ 100A$	Reverse Recovery Time ⁽¹⁾
	@ 25°C	@ 100°C	@ 25°C	@ 25°C
	μA	mA	Volts	nS
SCSFF05	↑	↑	↑	↑
SCSFF10	120	6.0	1.1	30
SCSFF15	↓	↓	↓	↓

MECHANICAL



1) Measured on discrete devices prior to assembly.

Maximum thermal impedances

Stud mounted $R_{\theta JC} < 0.67^\circ C/W$
 Insert mounted $R_{\theta JC} < 0.5^\circ C/W$
 Stud + insert mtd $R_{\theta JC} < 0.28^\circ C/W$

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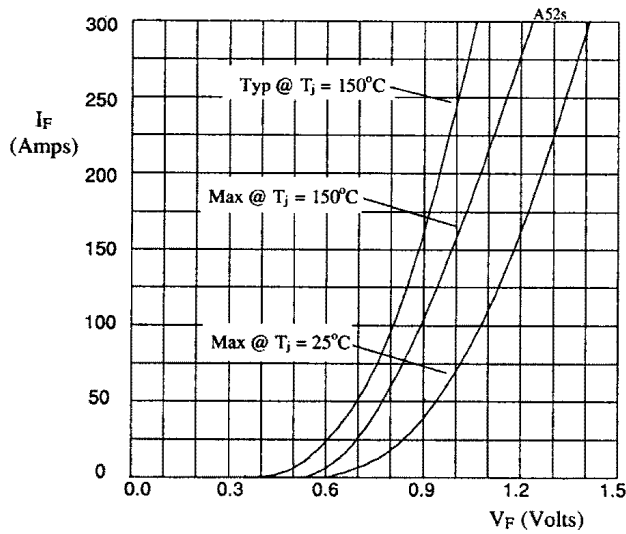


Fig 1. Forward voltage drop as a function of forward current.

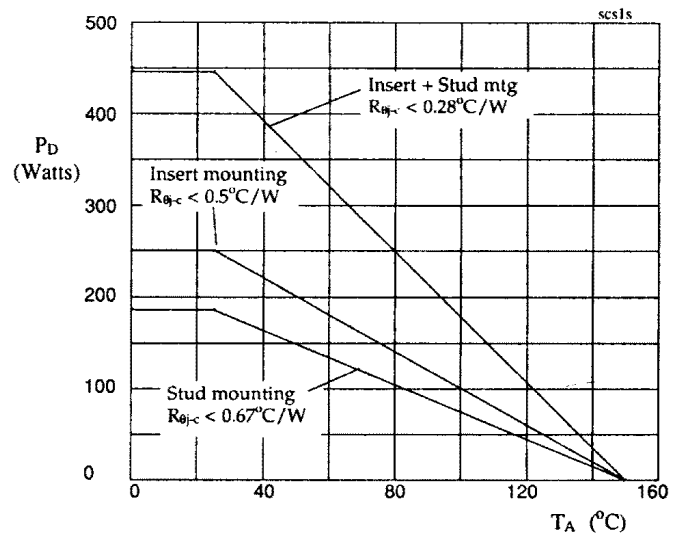


Fig 2. Power dissipation as a function of ambient temperature for different mountings.

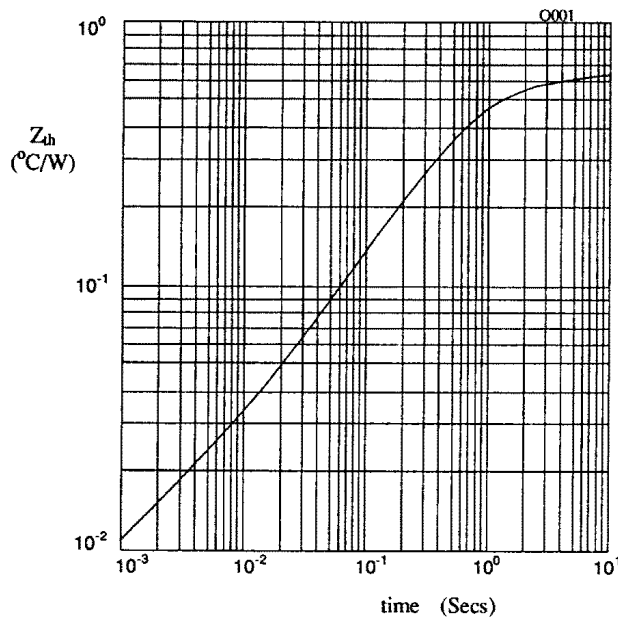


Fig 3. Transient thermal impedance characteristic when stud mounted.

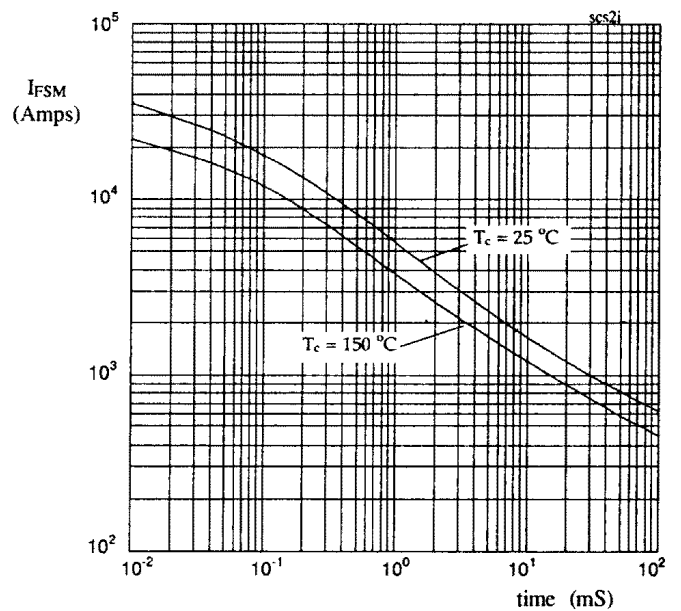


Fig 4. Maximum non-repetitive surge current against pulse width.