

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!



# Contact us

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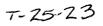
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# **POWER MODULES**



# 13A-42.5A SCR/DIODE CIRCUITS

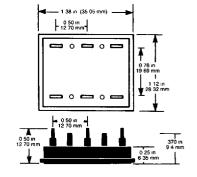
#### **Part Number Identification**

1st Digit Series Type	2nd Digit Current	3rd Digit Circuit Type	4th Digit AC Line Voltage	Options
L-Casestyle (Ceramic Base)	3-13 Amp 4-20 Amp. 5-25 Amp 6-42 5 Amp*	1-9 (see schematic) diagrams)	1-120 volts 2-240 volts 3-280 volts	F-Free Wheeling Diode Option C-Gate to cathode capacitor option. Consult factory.

<sup>\* 42.5</sup> AMP Rating only available in circuits 1, 2, 3, & 5.

Each part number consists of 4 to 7 digits. Use the table to determine the part that fits your needs.

# **Electrical Specifications**



		SERIES				
		L3	L4	L5	L6*	
l <sub>d</sub>	maximum dc output current @ 85°C = Tc ceramic full bridge (A)	13.0	20	25	42.5	
RMS	maximum output current @ 85°C = Tc CKT 5 (A)	15.0	22	27	46	
V <sub>TM</sub>	maximum SCR voltage (V) @ amperes peak		2.2V @ 20A	2.2V @ 25A	2.2V @ 40A	
I <sub>H</sub>	maximum holding current (mA)	100	100	100	200	
T	operating junction temperature range		-25°C to +125°C			
di/dt	critical rate of rise of on-state current @ T <sub>J</sub> = 125°C (A/µS)	100	100	100	100	
dv/dt	critical rate of rise of off-state current @ T <sub>J</sub> = 125°C (A/µS)	200	200	200	200	
V <sub>RMS</sub>	AC line input voltage	——120 (400PIV)—— ——240 (600PIV)—— ——280 (800PIV)—— ——400 (1200PIV)——				
I <sub>TSM</sub>	maximum non-repetitive surge current (A)	150	250	300	600	
l²t	maximum 12t for fusing t = 8.3 (A2 sec)	94	260	375	1500	
I <sub>GT</sub>	maximum required gate current to trigger, 25°C (mA)	100	100	100	100	
I <sub>GM</sub>	maximum peak gate current (A)	1.5	3.0	3.0	3.0	
$V_{\rm GT}$	maximum required gate voltage to trigger, 25°C (V)	2.5	2.5	2.5	3.0	
$\Lambda^{eD}$	maximum non-triggering gate voltage at Tj = 125°C (V)	0.2	0.2	0.2	0.2	
P <sub>GM</sub>	maximum peak gate power, tp = 10µSec. (W)	5.0	5.0	5.0	5.0	
P <sub>G</sub> (AV)	average gate power (W)	0.5	0.5	0.5	0.5	
V <sub>GM</sub>	maximum peak gate voltage (reverse) (V)	5.0	5.0	5.0	5.0	
R <sub>ocs</sub>	maximum thermal resistance to sink (°C/W)	0.1	0.1	0.1	0.1	
ROJC	typical thermal resistance junction to ceramic base per device (°C/W)	0.6	0.5	0.5	0.5	

# Circuit Configurations for Series L

