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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

January 16, 1998

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

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

- Very fast reverse recovery time
- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance

## QUICK REFERENCE DATA

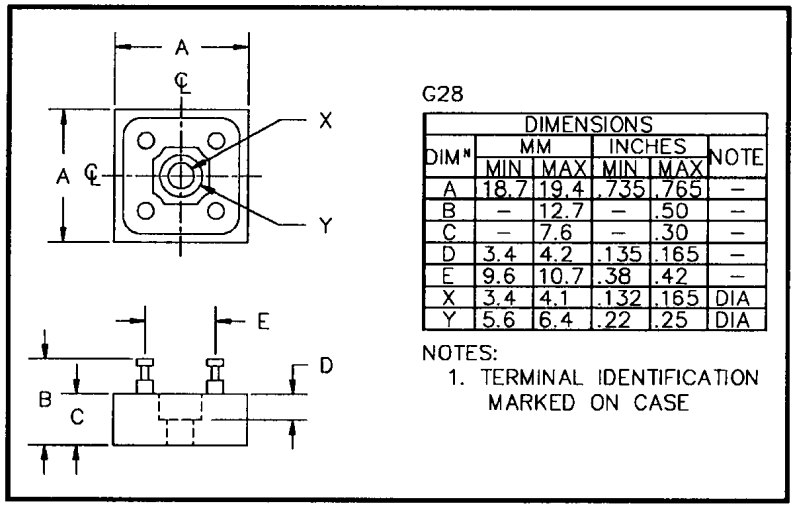
- $V_R$ = 50V - 150V
- $I_F$ = 12A
- $V_F$ = 0.97V
- $t_{rr}$ = 30nS

## ABSOLUTE MAXIMUM RATINGS

| Device Type | Working Reverse Voltage $V_{RWM}$ | Average Rectified Current $I_{F(AV)}$ (@ case temperature) | | | (@ ambient temperature) | | | 1 Cycle Surge Current $I_{FSM}$ $t_p$ = 8.3mS | | Repetitive Surge Current $I_{FRM}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | @ 55°C | @ 100°C | @ 125°C | @ 25°C | @ 55°C | @ 100°C | @ 25°C | @ 100°C | @ 25 °C |
| | Volts | Amps | Amps | Amps | Amps | Amps | Amps | Amps | Amps | Amps |
| SCBH05FF<br>SCBH10FF<br>SCBH15FF | 50<br>100<br>150 | 12 | 9 | 7.5 | 5 | 3.8 | 2 | 175 | 120 | 24 |

$R_{\theta JC} = 3.3^{o}C/W$

## MECHANICAL

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| DIM" | DIMENSIONS MM MIN | MM MAX | INCHES MIN | INCHES MAX | NOTE |
|---|---|---|---|---|---|
| A | 18.7 | 19.4 | .735 | .765 | – |
| B | – | 12.7 | – | .50 | – |
| C | – | 7.6 | – | .30 | – |
| D | 3.4 | 4.2 | .135 | .165 | – |
| E | 9.6 | 10.7 | .38 | .42 | – |
| X | 3.4 | 4.1 | .132 | .165 | DIA |
| Y | 5.6 | 6.4 | .22 | .25 | DIA |

NOTES:
1. TERMINAL IDENTIFICATION MARKED ON CASE

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## ELECTRICAL CHARACTERISTICS

| Device Type | Maximum Reverse Leakage Current $I_R$ @ $V_{RWM}$ | | Maximum Forward Voltage $V_F$ @ 5A/leg | Reverse Recovery Time [1] $t_{rr}$ @ 25°C | Maximum operating & storage temp. range. $T_{OP}$ $T_{STG}$ |
|---|---|---|---|---|---|
| | @ 25°C | @ 100°C | | | |
| | µA | mA | Volts | nS | °C |
| SCBH05FF<br>SCBH10FF<br>SCBH15FF | 20 | 1.0 | 0.97 | 30 | - 55<br>to<br>+150 |

[1] Measured on discrete devices prior to assembly

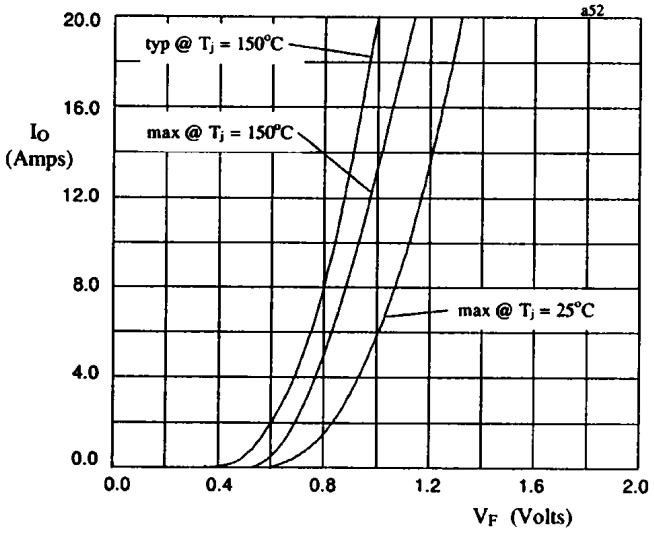


Fig 1. Forward voltage drop against output current per leg.

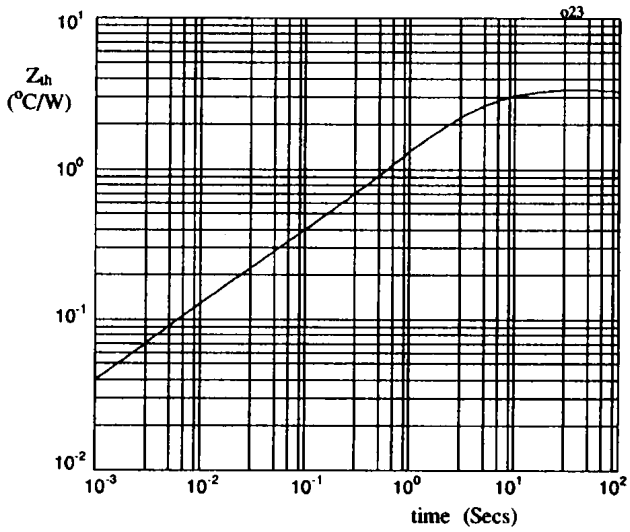


Fig 2. Transient thermal impedance characteristic per leg

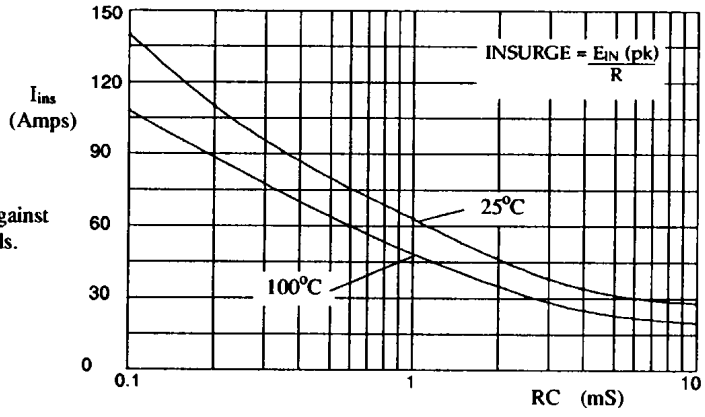


Fig 3. Maximum insurge current against time constant for capacitive loads.