

January 9, 1998

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**FAST RECOVERY, MEDIUM CURRENT CENTER TAP  
AND DOUBLER RECTIFIER ASSEMBLIES**

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

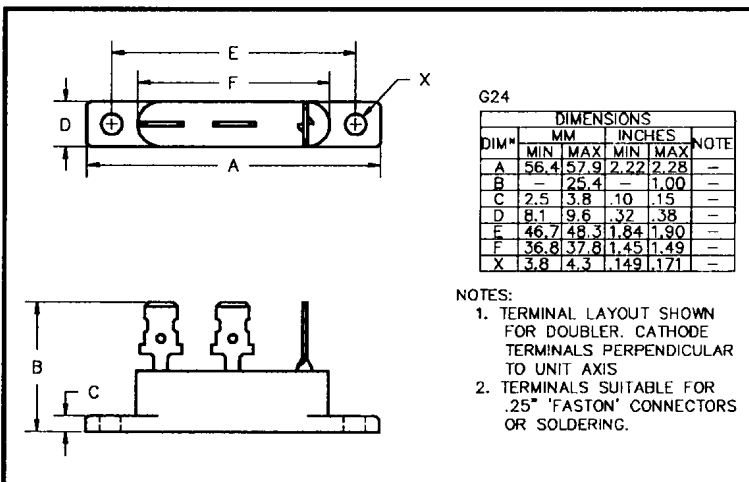
**QUICK REFERENCE  
DATA**

- $V_R = 50V - 400V$
- $I_F = 15.0A$
- $I_R = 1.0 \mu A$
- $t_{rr} = 150nS$

**ABSOLUTE MAXIMUM RATINGS**

| Device Type     | Working Reverse Voltage<br>$V_{RWM}$ | Average Rectified Current |       |       |                         |      |       | 1 Cycle Surge Current<br>$t_p = 8.3mS$ |       | Repetitive Surge Current |
|-----------------|--------------------------------------|---------------------------|-------|-------|-------------------------|------|-------|--|-------|--------------------------|
|                 |                                      | (@ case temperature)      |       |       | (@ ambient temperature) |      |       | 25°C                                   | 100°C |                          |
|                 |                                      | 55°C                      | 100°C | 125°C | 25°C                    | 55°C | 100°C |  |       |                          |
| Volts           | Amps                                 | Amps                      | Amps  | Amps  | Amps                    | Amps | Amps  | Amps                                   |       |                          |
| SCDA05F         | 50                                   | ↑                         | ↑     | ↑     | ↑                       | ↑    | ↑     | ↑                                      | ↑     |                          |
| SCDA1F          | 100                                  | 7.5                       | 5.0   | 2.5   | 1.50                    | 1.15 | 0.6   | 150                                    | 100   |                          |
| SCDA2F          | 200                                  | ↓                         | ↓     | ↓     | ↓                       | ↓    | ↓     | ↓                                      | ↓     |                          |
| SCDA4F          | 400                                  | ↓                         | ↓     | ↓     | ↓                       | ↓    | ↓     | ↓                                      | ↓     |                          |
| SCNA05F SCPA05F | 50                                   | ↑                         | ↑     | ↑     | ↑                       | ↑    | ↑     | ↑                                      | ↑     |                          |
| SCNA1F SCPA1F   | 100                                  | 15.0                      | 10.0  | 5.0   | 3.00                    | 2.30 | 1.2   | 150                                    | 100   |                          |
| SCNA2F SCPA2F   | 200                                  | ↓                         | ↓     | ↓     | ↓                       | ↓    | ↓     | ↓                                      | ↓     |                          |
| SCNA4F SCPA4F   | 400                                  | ↓                         | ↓     | ↓     | ↓                       | ↓    | ↓     | ↓                                      | ↓     |                          |

**MECHANICAL**



Maximum thermal impedance  
 $R_{\theta JC} = 4^{\circ}C/W$

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### ELECTRICAL CHARACTERISTICS (apply per leg)

| Device Type  | Reverse Current @ $V_{RWM}$ |          | Maximum Forward Voltage $V_F @ 3.0A @ 25^\circ C$ | Maximum Reverse Recovery Time |
|--|-----------------------------|----------|---|-------------------------------|
|  | @ 25 °C                     | @ 100 °C |   |                               |
|  | $\mu A$                     | $\mu A$  | Volts   | nS                            |
| SCDA05F<br>SCDA1F<br>SCDA2F<br>SCDA4F                              | 1.0                         | 20       | 1.1   | 150                           |
| SCNA05F SCPA05F<br>SCNA1F SCPA1F<br>SCNA2F SCPA2F<br>SCNA4F SCPA4F | 1.0                         | 20       | 1.1   |                               |

<sup>1</sup> Measured on discrete devices prior to assembly

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

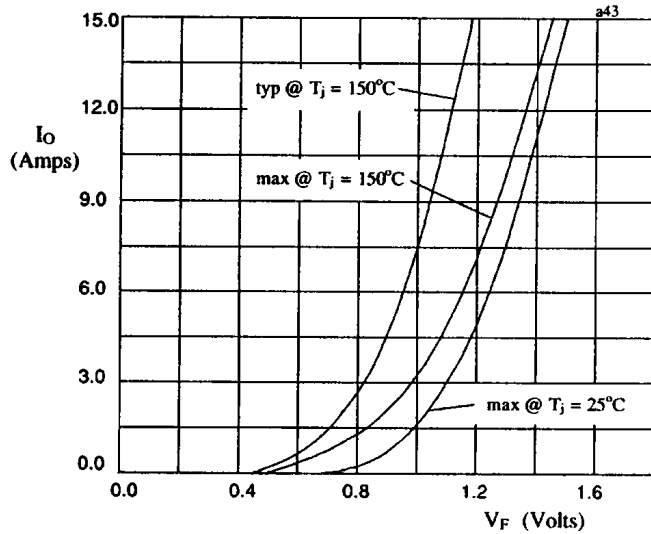


Fig 1. Forward voltage drop against current (per leg)

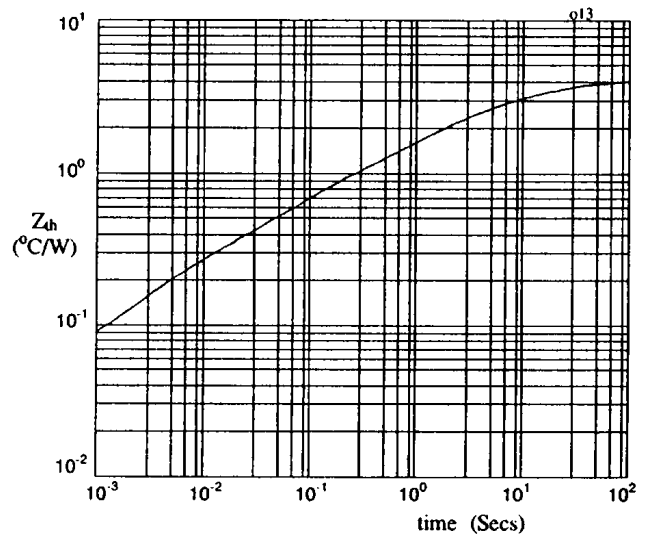


Fig 2. Transient thermal impedance characteristic per leg