

FAST RECOVERY, MEDIUM CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

QUICK REFERENCE DATA

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

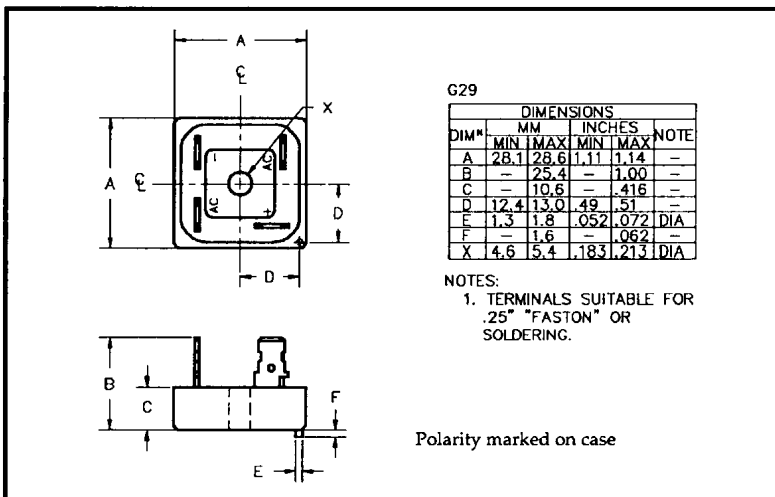
- $V_R = 50V - 400V$
- $I_F = 20.0A$
- $I_R = 2.0 \mu A$
- $t_{rr} = 150ns$

ABSOLUTE MAXIMUM RATINGS

| Device Type | Working Reverse Voltage V_{RWM} | Average Rectified Current $I_{F(AV)}$ | | | | | | 1 Cycle Surge Current | |
|-------------|-----------------------------------|---------------------------------------|---------|---------|-------------------------|--------|---------|-----------------------|---------|
| | | (@ case temperature) | | | (@ ambient temperature) | | | $I_{FSM} t_p = 8.3mS$ | |
| | | @ 55°C | @ 100°C | @ 125°C | @ 25°C | @ 55°C | @ 100°C | @ 25°C | @ 100°C |
| | | Volts | Amps | Amps | Amps | Amps | Amps | Amps | Amps |
| SCBA05F | 50 | | | | | | | | |
| SCBA1F | 100 | 20 | 15 | 10 | 5.0 | 4.0 | 2.5 | 150 | 80 |
| SCBA2F | 200 | | | | | | | | |
| SCBA4F | 400 | | | | | | | | |

$$R_{\theta JC} = 2.0^{\circ}C/W$$

MECHANICAL



SCBA4F is available in Europe to DEF STAN 59-61/90/207 release to F and FX levels.

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ELECTRICAL CHARACTERISTICS

| Device Type | Maximum Reverse Leakage Current I_R @ V_{RWM} | | Maximum Forward Voltage V_F @ 3A/leg | Reverse Recovery Time ¹ t_{rr} @ 25°C | Maximum operating & storage temp. range. T_{OP} T_{STG} | |
|---------------------------------------|---|---------|--|--|---|-----------|
| | @ 25°C | @ 100°C | | | T_{OP} | T_{STG} |
| | μA | μA | Volts | nS | °C | |
| SCBA05F SCBA1F SCBA2F SCBA4F | 2.0 | 50 | 1.1 | 150 150 150 150 | -55 to +150 | |

¹ Measured on discrete devices prior to assembly

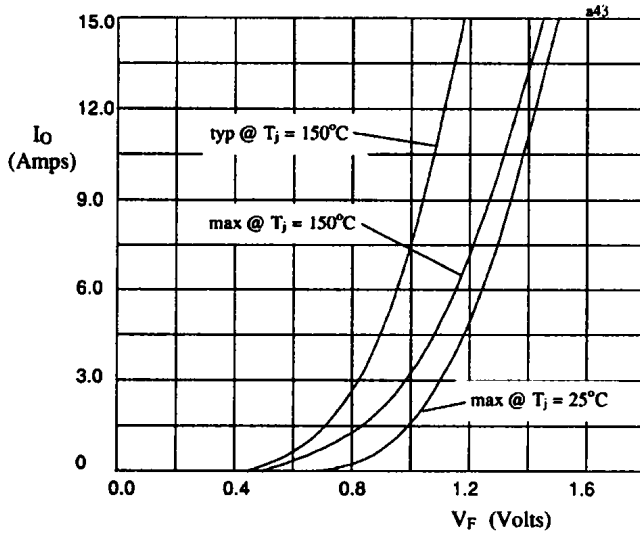


Fig 1. Forward voltage drop against output current per leg.

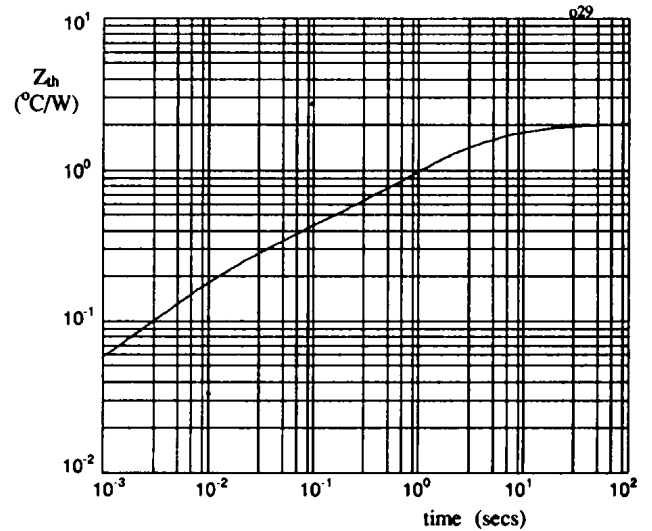


Fig 2. Transient thermal impedance characteristic per leg

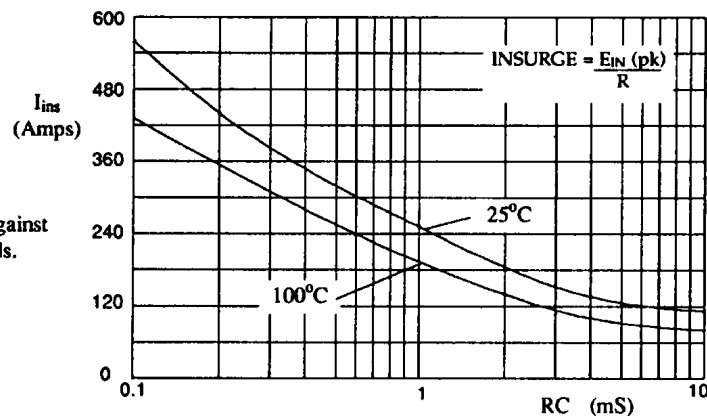


Fig 3. Maximum insurge current against time constant for capacitive loads.