

HIGH VOLTAGE, HIGH CURRENT, STANDARD RECOVERY DOUBLER AND CENTER TAPS

- Up to 48kV reverse voltage
- Air or oil environment
- High reverse surge current
- High thermal shock resistance
- Integral cooling fins

QUICK REFERENCE DATA

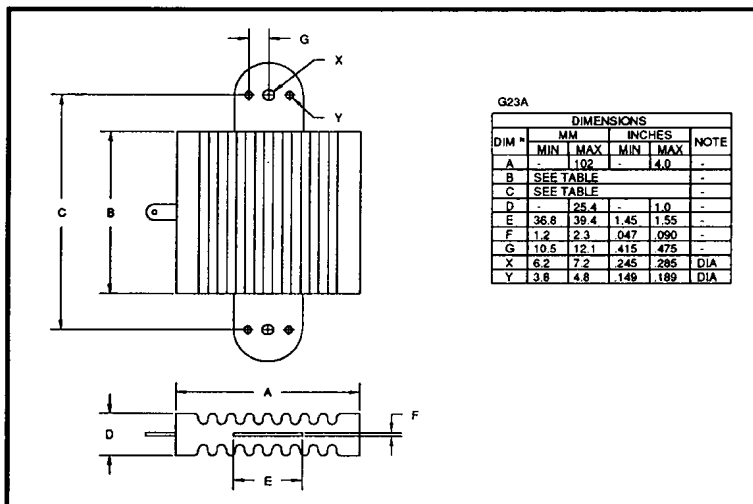
- $V_R = 8kV - 48kV$
- $I_F = 7.5 - 10.0A$ (in oil)
- $I_R = 1.0 \mu A$
- $I_{FSM} = 150 A$

ABSOLUTE MAXIMUM RATINGS (apply per leg)

| Device Type | Working Reverse Voltage V_{RWM} | Average Rectified Current | | | | 1 Cycle Surge Current $t_p = 8.3mS$ | | Repetitive Surge Current | I^2t $t_p = 8.3mS$ |
|-------------|--------------------------------------|---------------------------|------------|--------------------------|---------------|--|---------------|--------------------------|-------------------------|
| | | air @ 25°C | air @ 65°C | forced air 600CFM @ 55°C | in oil @ 25°C | @ 25°C | @ 100°C | @ 25°C | @ 25°C |
| | | Volts | Amps | Amps | Amps | Amps | Amps | Amps | A ² S |
| S1KW8C-1* | 8000 | 4.0 | 2.75 | 8.0 | 10.0 | ↑ 150 ↓ | ↑ 100 ↓ | ↑ 45 ↓ | ↑ 90 ↓ |
| S1KW16C-2* | 16000 | 3.0 | 2.0 | 6.0 | 7.5 | | | | |
| S1KW24C-3* | 24000 | 3.0 | 2.0 | 6.0 | 7.5 | | | | |
| S1KW32C-4* | 32000 | 3.0 | 2.0 | 6.0 | 7.5 | | | | |
| S1KW40C-5* | 40000 | 3.0 | 2.0 | 6.0 | 7.5 | | | | |
| S1KW48C-6* | 48000 | 3.0 | 2.0 | 6.0 | 7.5 | | | | |

* add suffix for desired circuit arrangement
D = doubler, N = Negative center tap, P = positive center tap
($I_O \times 0.5$ for doubler)

MECHANICAL



| Dimensions (see drawing) | |
|-----------------------------|-----------|
| B ±0.030" | C ±0.030" |
| inches | inches |
| 4.78 | 6.48 |
| 7.98 | 9.68 |
| 11.18 | 12.88 |
| 14.38 | 16.08 |
| 17.58 | 19.28 |
| 20.78 | 22.48 |

January 9, 1998

CHARACTERISTICS (apply per leg)

| Device Type | Reverse Current @ V_{RWM} | | Maximum Forward Voltage $V_F @ 3.0A @ 25^\circ C$ | Maximum Reverse Recovery Time ¹ $t_{rr} @ 25^\circ C$ |
|-------------|-----------------------------|--------------|---|--|
| | @ 25 °C | @ 100 °C | | |
| | μA | μA | Volts | μS |
| S1KW8C-1* | ↑ 1.0 ↓ | ↑ 20 ↓ | 8 | ↑ 2.0 ↓ |
| S1KW16C-2* | | | 16 | |
| S1KW24C-3* | | | 24 | |
| S1KW32C-4* | | | 32 | |
| S1KW40C-5* | | | 40 | |
| S1KW48C-6* | | | 48 | |

¹ Measured on discrete devices prior to assembly

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

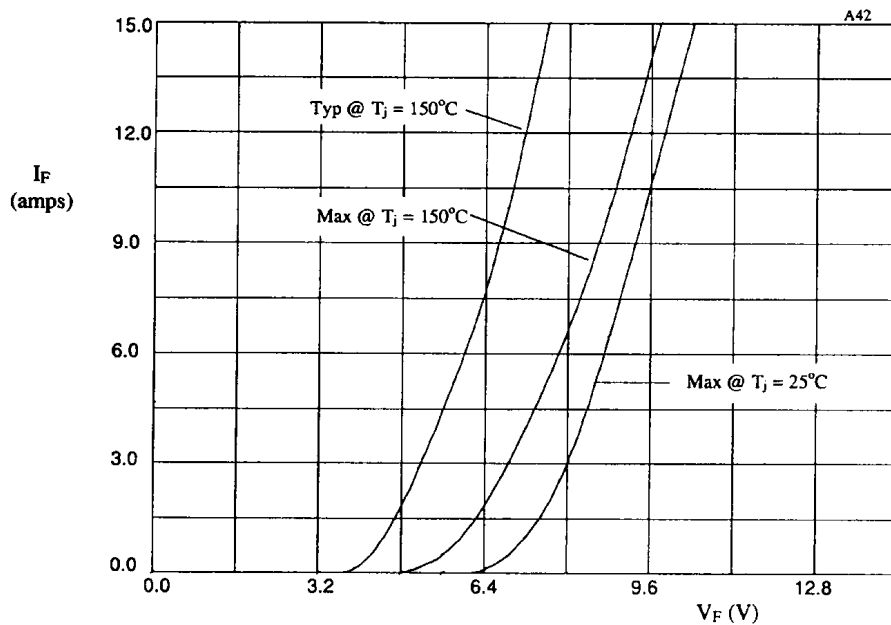


TABLE 1

| DEVICE | X-axis |
|------------|--------|
| S1KW8C-1* | x1 |
| S1KW16C-2* | x2 |
| S1KW24C-3* | x3 |
| S1KW32C-4* | x4 |
| S1KW40C-5* | x5 |
| S1KW48C-6* | x6 |

Figure 1. Forward voltage drop per leg as a function of forward current for use with table 1.