

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

- Up to 24kV reverse voltage
- Air or oil environment
- High reverse surge current
- High thermal shock resistance
- Integral cooling fins

**QUICK REFERENCE DATA**

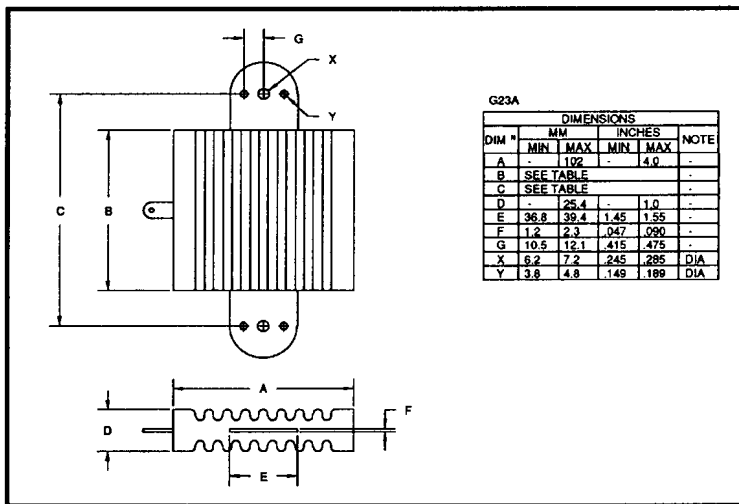
- $V_R = 4kV - 24kV$
- $I_F = 15 - 20A$  (in oil)
- $I_R = 2.0\mu A$
- $I_{FSM} = 250A$

**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 <sup>2</sup> S
S2KW4C-1*	4000	8.0	5.5	16	20	↑	↑	↑	↑
S2KW8C-2*	8000	6.0	4.1	12	15	↑	↑	↑	↑
S2KW12C-3*	12000	6.0	4.1	12	15	250	150	45.0	240
S2KW16C-4*	16000	6.0	4.1	12	15	↓	↓	↓	↓
S2KW20C-5*	20000	6.0	4.1	12	15	↓	↓	↓	↓
S2KW24C-6*	24000	6.0	4.1	12	15	↓	↓	↓	↓

\* 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

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**CHARACTERISTICS** (apply per leg)

Device Type	Reverse Current @ $V_{RWM}$		Maximum Forward Voltage $V_F$ @ 6.0A @ 25°C	Maximum Reverse Recovery Time <sup>1</sup> $t_{rr}$ @ 25°C
	@ 25 °C	@ 100 °C		
	μA	μA	Volts	μS
S2KW4C-1*	↑	↑	4.0	↑
S2KW8C-2*	↑	↑	8.0	↑
S2KW12C-3*	2.0	40	12	2.0
S2KW16C-4*	↓	↓	16	↓
S2KW20C-5*	↓	↓	20	↓
S2KW24C-6*	↓	↓	24	↓

<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

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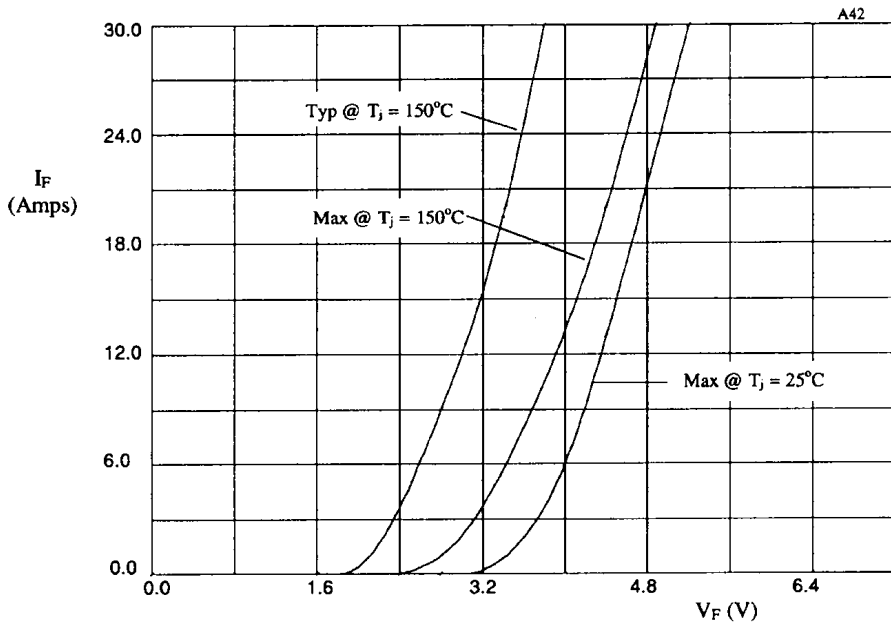


Figure 1. Forward voltage drop per leg as a function of forward current for use with table 1.

TABLE 1

DEVICE	X-axis
S2KW4C-1*	x1
S2KW8C-2*	x2
S2KW12C-3*	x3
S2KW16C-4*	x4
S2KW20C-5*	x5
S2KW24C-6*	x6