



**THE DATASHEET OF
S1KW24C-3D**



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

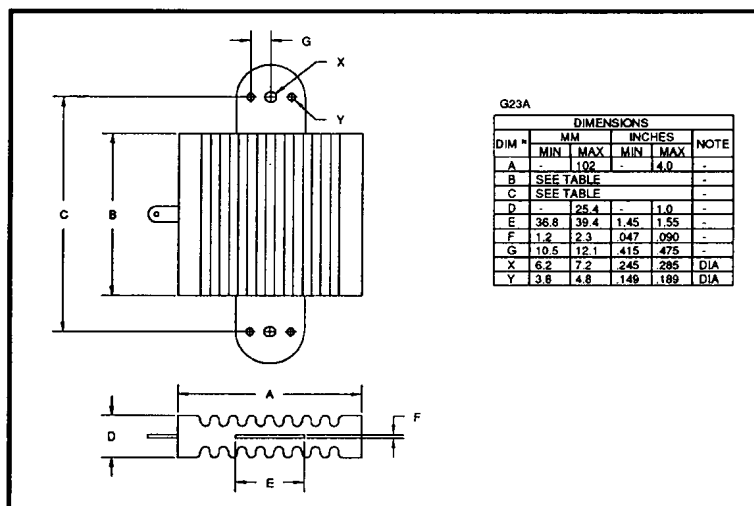
- $V_R = 8kV - 48kV$
- $I_F = 7.5 - 10.0A$ (in oil)
- $I_R = 1.0 \mu A$
- $I_{FSM} = 150 A$

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 $-55^\circ C$ to $+150^\circ C$
Storage temperature range $-55^\circ C$ to $+150^\circ C$

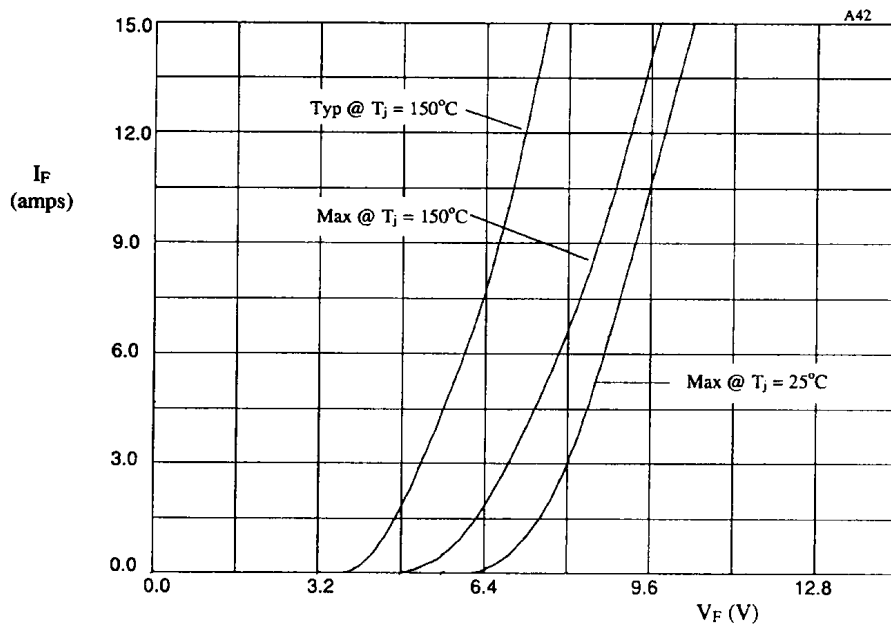




TABLE 1

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.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View S1KW24C-3D on WIN SOURCE](#)
-  [Semtech Corporation](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management