

January 9, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:<http://www.semtech.com>

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

QUICK REFERENCE DATA

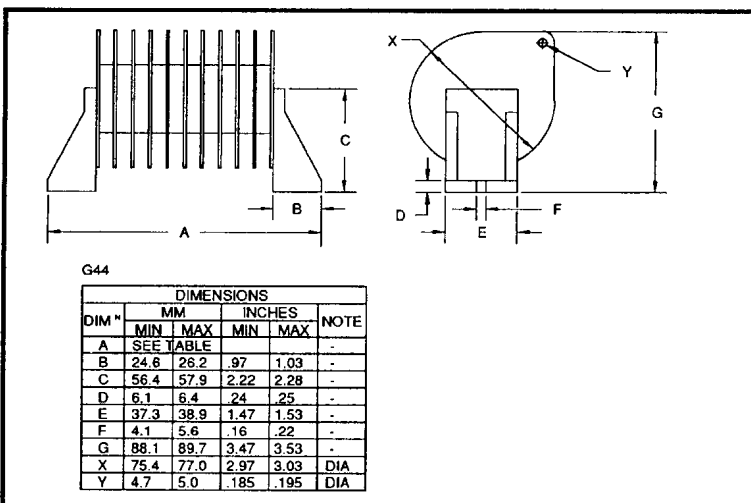
- Up to 11A forward current and 15kV reverse voltage
- Air or oil enviroment
- High reverse surge current
- High thermal shock resistance
- Integral cooling fins

- $V_R = 5kV - 15kV$
- $I_F = 11.0A$
- $I_R = 1.0 \mu A$
- $I_{FSM} = 150A$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current			1 Cycle Surge Current $t_p = 8.3mS$		Repetitive Surge Current $t_p = 8.3mS$	I^2t $t_p = 8.3mS$	Body length dim A
		air 55°C	air 100°C	oil 55°C	@ 25°C	@ 100°C			
		Amps	Amps	Amps	Amps	Amps			
SCPND5	5000								5.53
SCPND10	10000	5.5	3.0	11	150	80	25	93.4	8.83
SCPND15	15000								12.13
SCPNN5	5000								5.53
SCPNN10	10000	11.0	6.0	22	150	80	25	93.4	8.83
SCPNN15	15000								12.13
SCPNP5	5000								5.53
SCPNP10	10000	11.0	6.0	22	150	80	25	93.4	8.83
SCPNP15	15000								12.13

MECHANICAL



January 9, 1998

CHARACTERISTICS (apply per leg)

Device Type	Reverse Current @ V_{RWM}		Maximum Forward Voltage V_F @ 3.0A. @ 25°C	Maximum Reverse Recovery Time ¹ t_{rr} @ 25°C
	@ 25 °C	@ 100 °C		
	μA	μA	Volts	nS
SCPND5 SCPND10 SCPND15	1.0	20	5.0 10.0 15.0	2000
SCPNN5 SCPNN10 SCPNN15	1.0	20	5.0 10.0 15.0	2000
SCPNP5 SCPNP10 SCPNP15	1.0	20	5.0 10.0 15.0	2000

¹ Measured on discrete devices prior to assembly

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

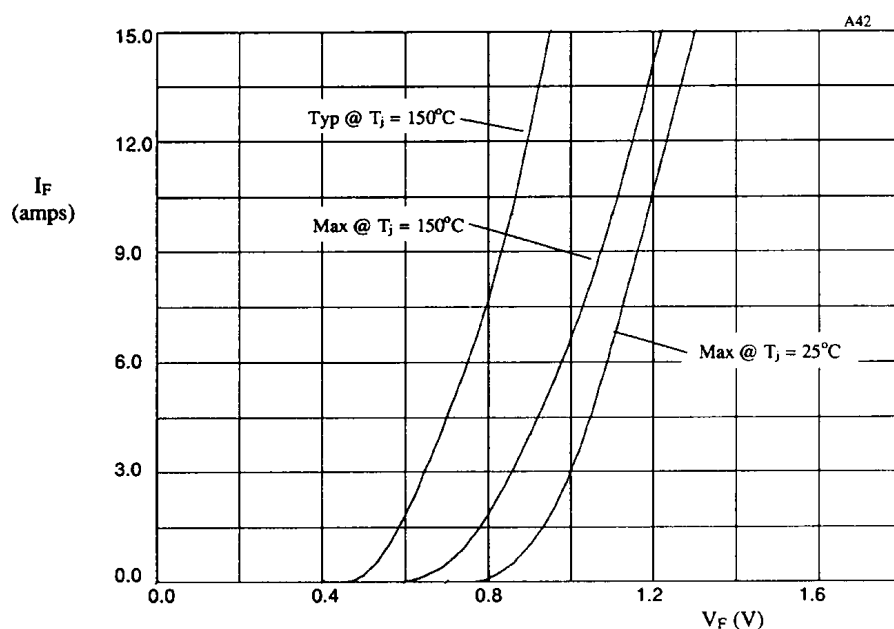


TABLE I

DEVICE	X-axis
SCPND*5	x1
SCPND*10	x2
SCPND*15	x3

Figure 1. Maximum and typical forward voltage drops as a function of forward current ($T_j = 25^\circ\text{C}$ & 150°C) for use with table 1.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Semtech:](#)

[SCPND15](#) [SCPND5](#) [SCPNP5](#)