January 29, 1998

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HIGH VOLTAGE, HIGH CURRENT, HIGH DENSITY, STANDARD RECOVERY RECTIFIER ASSEMBLY

- 5.5A forward current and 30kV reverse voltage
- Air or oil enviroment
- High reverse surge current
- High thermal shock resistance
- Integral fins for easy cooling

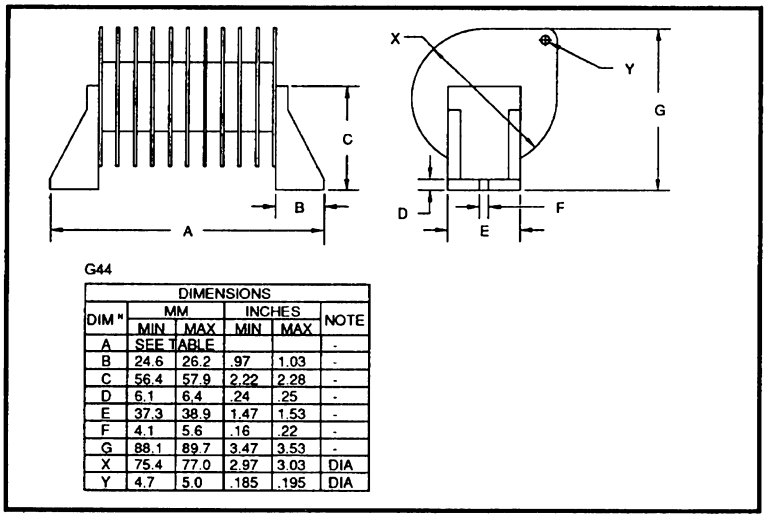
QUICK REFERENCE DATA

- V_R = 6kV - 30kV
- I_F = 5.50A
- I_R = 1.0µA
- I_{FSM} = 150A

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$		1 Cycle Surge Current t_p = 8.3mS I_{FSM}		Repetitive Surge Current I_{FRM}	I^2t t_p = 8.3mS	Body length
		air 55°C	air 100°C	@ 25 °C	@ 100 °C	@ 25 °C	@ 25 °C	dim A
	Volts	Amps	Amps	Amps	Amps	Amps	A^2S	inches
SCPHN6	6000	5.5	3.0	150	80	90	93.4	4.21
SCPHN10	10000							5.53
SCPHN16	16000							7.51
SCPHN20	20000							8.83
SCPHN26	26000							10.81
SCPHN30	30000							12.13

MECHANICAL



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DIMENSIONS					
DIM "	MM		INCHES		NOTE
	MIN	MAX	MIN	MAX	
A	SEE TABLE				-
B	24.6	26.2	.97	1.03	-
C	56.4	57.9	2.22	2.28	-
D	6.1	6.4	.24	.25	-
E	37.3	38.9	1.47	1.53	-
F	4.1	5.6	.16	.22	-
G	88.1	89.7	3.47	3.53	-
X	75.4	77.0	2.97	3.03	DIA
Y	4.7	5.0	.185	.195	DIA

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CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 25 °C	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 100 °C	Maximum Forward Voltage V_F @ 3.0A. @ 25°C	Maximum Reverse Recovery Time [1] t_{rr} @ 25°C
	µA	µA	Volts	µS
SCPHN6	1.0	20	6.0	2.0
SCPHN10			10.0	
SCPHN16			16.0	
SCPHN20			20.0	
SCPHN26			26.0	
SCPHN30			30.0	

[1] Measured on discrete devices prior to assembly

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

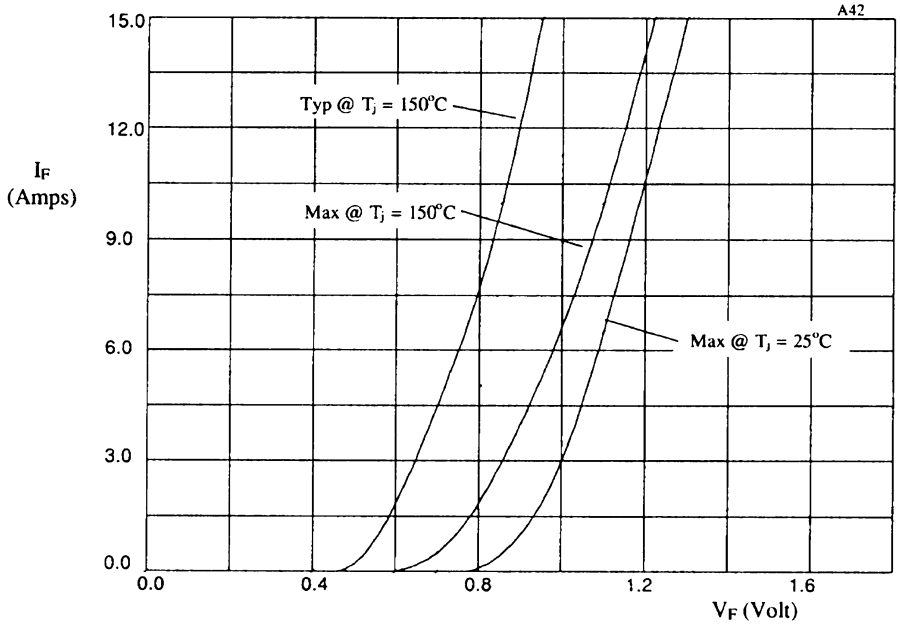

Figure 1. Forward voltage drop as a function of forward current for use with table 1.

TABLE 1

DEVICE	X-axis
SCPHN6	x6
SCPHN10	x10
SCPHN16	x16
SCPHN20	x20
SCPHN26	x26
SCPHN30	x30