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STANDARD RECOVERY HIGH VOLTAGE RECTIFIER ASSEMBLY

SCHS2500 SCHS10000
SCHS5000 SCHS12500
SCHS7500 SCHS15000

January 8, 1998

HIGH VOLTAGE, HIGH DENSITY, STANDARD RECOVERY LEADED SILICON RECTIFIER ASSEMBLY

- Low reverse leakage current
- Low forward voltage drop
- High thermal shock resistance
- Corona free construction
- Low distributed capacitance

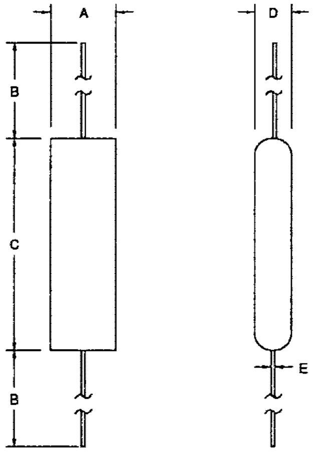
QUICK REFERENCE DATA

- V_R = 2500V - 15000V
- I_F = 2.0A
- I_R = 1.0 µA
- I_{FSM} = 80A

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$				1 Cycle Surge Current I_{FSM} t_p = 8.3mS @ T_j MAX	I^2t t_p = 8.3mS @ T_j MAX	Repetitive Surge Current @ 25°C	Case Length dim. C Max
		@ 55 °C	@ 100 °C	Forced air 600CFM, 25°C	in still oil @ 55 °C				
	Volts	Amps	Amps	Amps	Amps	Amps	A^2S	Amps	Inches
SCHS2500	2500	2.0	1.2	2.0	4.0	80	26	31	1.53
SCHS5000	5000								2.53
SCHS7500	7500								3.53
SCHS10000	10000								4.53
SCHS12500	12500								5.53
SCHS15000	15000								6.53

MECHANICAL



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DIMENSIONS					
DIM *	MM		INCHES		NOTE
	MIN	MAX	MIN	MAX	
A	-	18.0	-	.71	-
B	50.8	-	2.00	-	-
C	SEE TABLE				-
D	-	9.9	-	.39	-
E	1.22	1.37	.048	.054	-

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ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltages V_F @ 3.0A @ 25°C	Maximum Reverse Recovery Time (1) @ 25°C
	@ 25 °C	@ 100 °C		
	µA	µA	Volts	µS
SCHS2500	1.00	10.0	3.45	2.5
SCHS5000			5.75	
SCHS7500			9.20	
SCHS10000			11.50	
SCHS12500			14.95	
SCHS15000			18.40	

1. Measured on discrete devices prior to assembly.

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

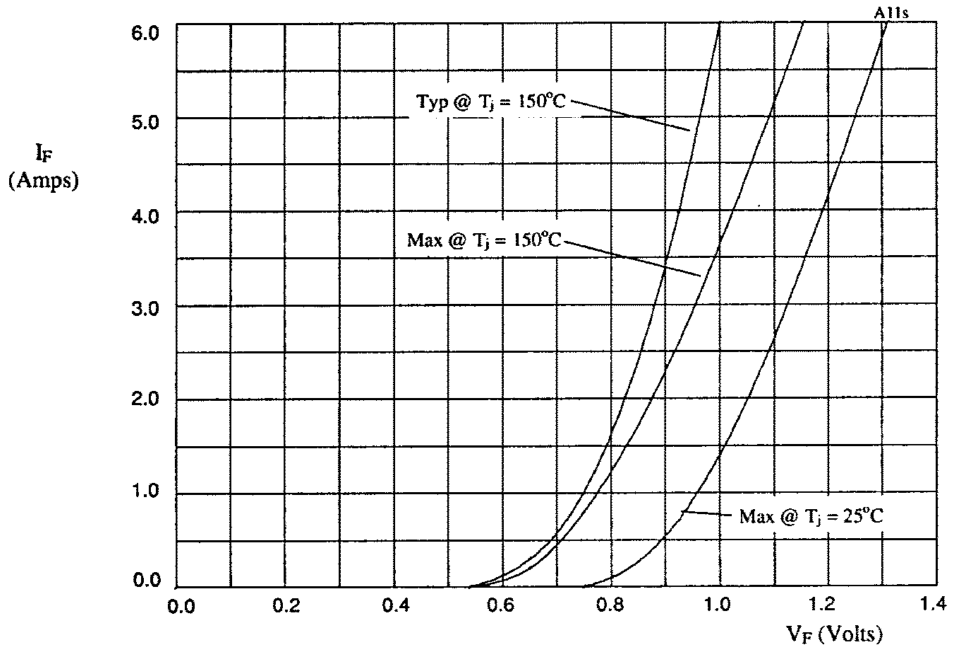

Figure 1. Forward voltage drop as a function of forward current.

TABLE 1

DEVICE	X-AXIS
SCHS2500	x3
SCHS5000	x6
SCHS7500	x8
SCHS10000	x10
SCHS12500	x13
SCHS15000	x16

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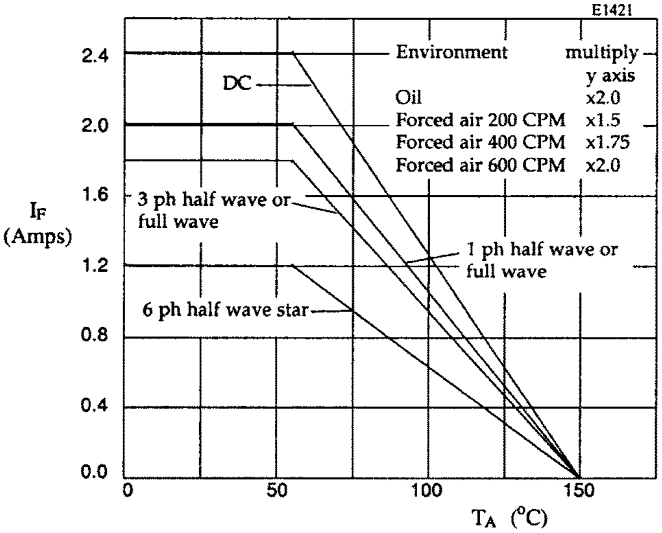

Figure 2. Maximum forward current against ambient temperature.

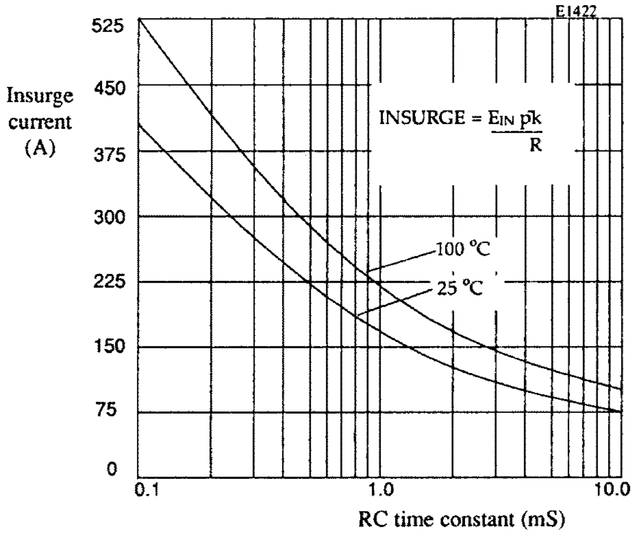

Figure 3. Maximum ratings for capacitive loads. Insurge current versus RC time constant

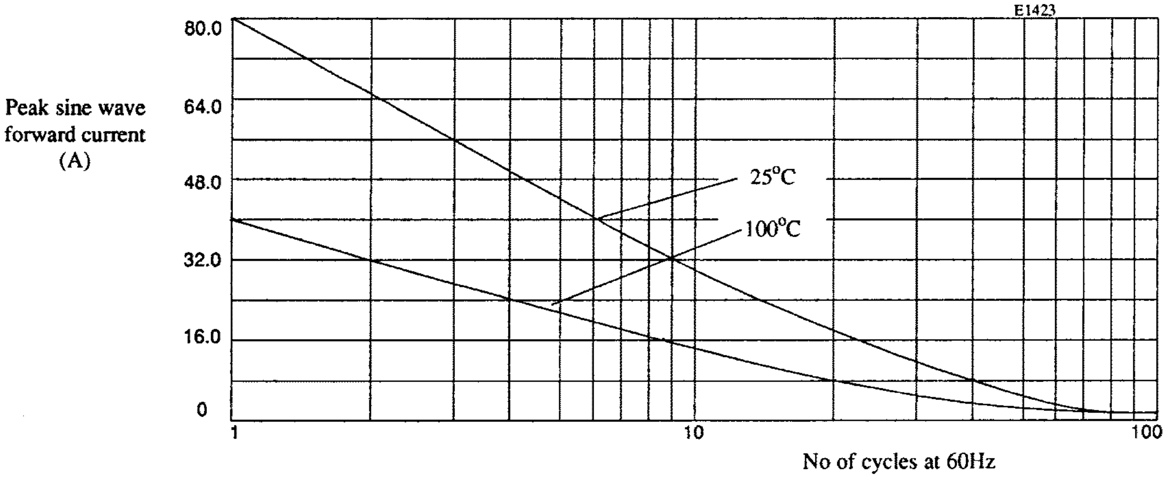

Figure 4. Non repetitive forward current surge curves.

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