

January 8, 1998

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## QUICK REFERENCE DATA

- $V_R = 15kV - 45kV$
- $I_F = 50mA$  (in air)
- $I_R = 1.0\mu A$
- $I_{FSM} = 25A$

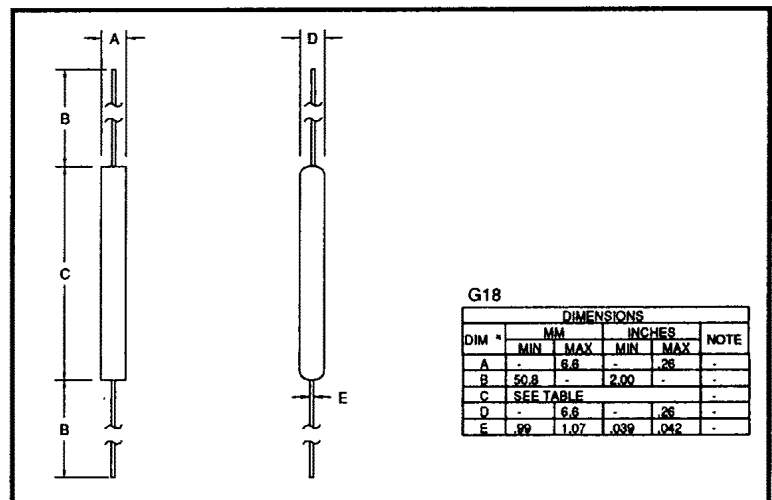
## HIGH VOLTAGE, HIGH DENSITY, LEADED SILICON RECTIFIER ASSEMBLY

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

## ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage $V_{RWM}$	Average Rectified Current				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 $I_{FRM}$ @ 25°C	Case Length Max Dim C
		@ 55°C	@ 100°C	Forced air 600CFM, 55°C	in still oil @ 55 °C				
		Volts	Amps	Amps	Amps				
SCHJ15K	15000	↑	↑	↑	↑	↑	↑	1.52	
SCHJ22.5K	22500	↑	↑	↑	↑	↑	↑	2.02	
SCHJ30K	30000	0.05	0.03	0.1	0.1	25	2.6	2.52	
SCHJ37.5K	37500	↓	↓	↓	↓	↓	↓	3.02	
SCHJ45K	45000	↓	↓	↓	↓	↓	↓	3.52	

## MECHANICAL



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## ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Forward Voltages $V_F @ 0.1A @ 25^\circ C$	Maximum Reverse Recovery Time <sup>(1)</sup> $@ 25^\circ C$
	@ 25 °C	@ 100 °C		
	$\mu A$	$\mu A$	Volts	$\mu S$
SCHJ15K	↑	↑	20	↑
SCHJ22.5K	↑	↑	30	↑
SCHJ30K	1.0	20	40	2.5
SCHJ37.5K	↓	↓	50	↓
SCHJ45K	↓	↓	60	↓

1. Measured on discrete devices prior to assembly

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

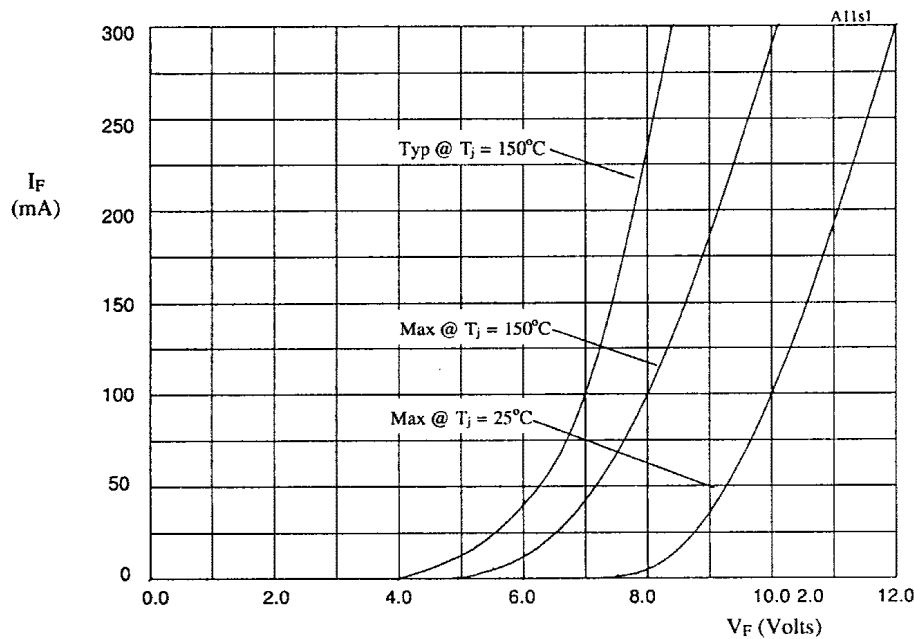


Fig 1. Forward voltage drop as a function of forward current for use with table 1.

TABLE 1

DEVICE	X-AXIS
SCHJ15K	x2
SCHJ22.5K	x3
SCHJ30K	x4
SCHJ37.5K	x5
SCHJ45K	x6

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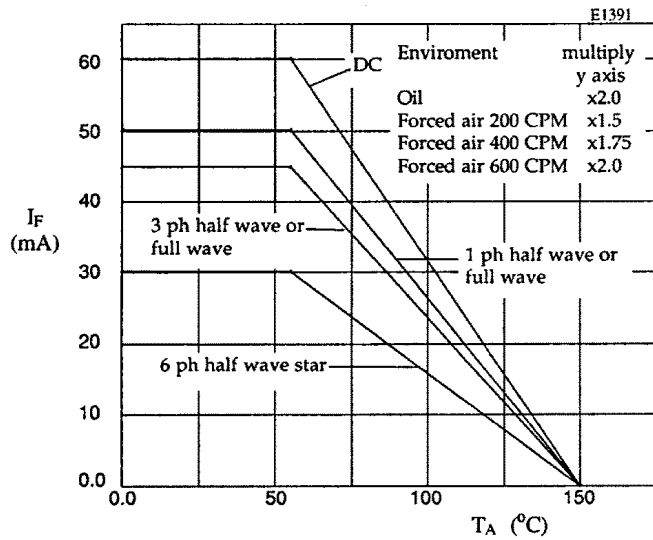


Figure 2. Maximum forward currents against ambient temperature.

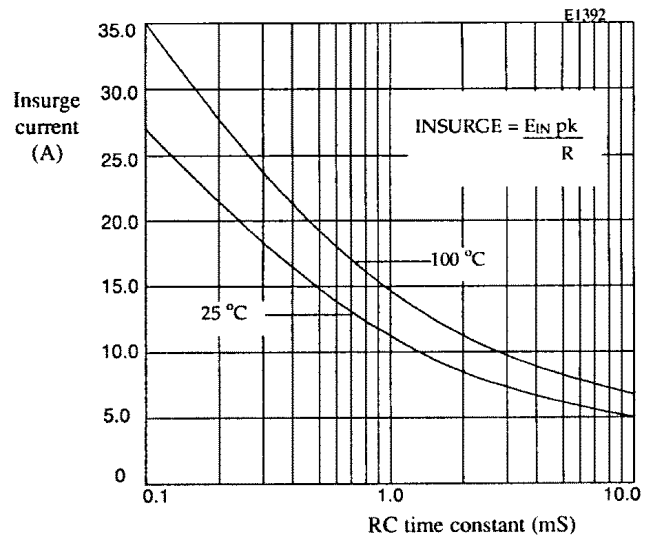


Figure 3. Maximum ratings for capacitive loads. Insurge current versus RC time constant

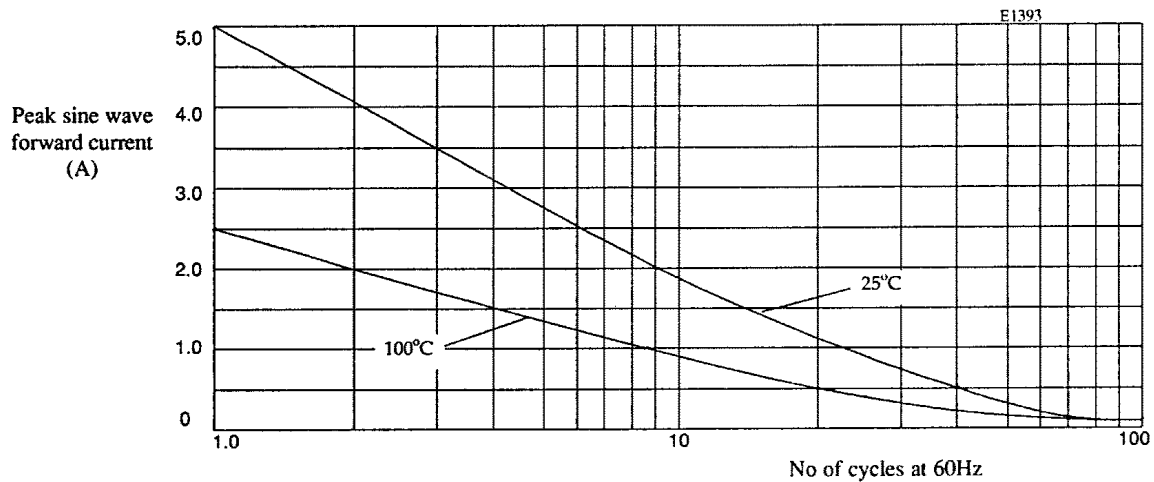


Figure 4. Non repetitive forward current surge curves for 25°C and 100°C