

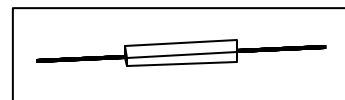
TECHNICAL DATA
DATA SHEET 542, REV. -

HIGH VOLTAGE, HIGH DENSITY, LEADED SILICON RECTIFIER ASSEMBLY

FEATURES:

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

- $V_R = 5000V - 25000V$
- $I_F = 0.5A$
- $I_R = 1.0mA$
- $I_{FSM} = 50A$



Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV)	MAX. AVG. DC OUTPUT CURRENT $I_{F(AV)}$		FORCED AIR @ 600 CFM, 55°C	IN STILL OIL @ 55°C	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	PACKAGE LENGTH
		Amps							
		Volts	55°C						
SCH5000	5000								1.145
SCH7500	7500								1.645
SCH10000	10000	0.5	0.33	1.0	1.0	50	12	10	2.020
SCH12500	12500								2.395
SCH15000	15000								2.770
SCH20000	20000								3.520
SCH25000	25000								4.270

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C
	μ Amps				
	25°C	100°C	V	A	μ sec
SCH5000	1.0	20	5.0	1.0	5.0
SCH7500			8.0		
SCH10000			10.0		
SCH12500			13.0		
SCH15000			15.0		
SCH20000			20.0		
SCH25000			25.0		

Notes:

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

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

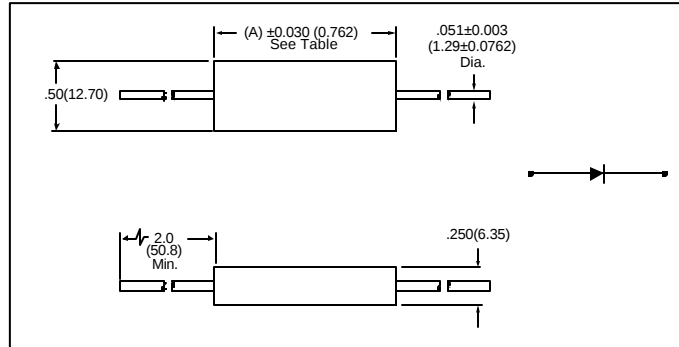
① Measured on discrete devices prior to assembly.

SENSITRON

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Mechanical Dimensions in: mm / inches



CHARACTERISTICS CURVES

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

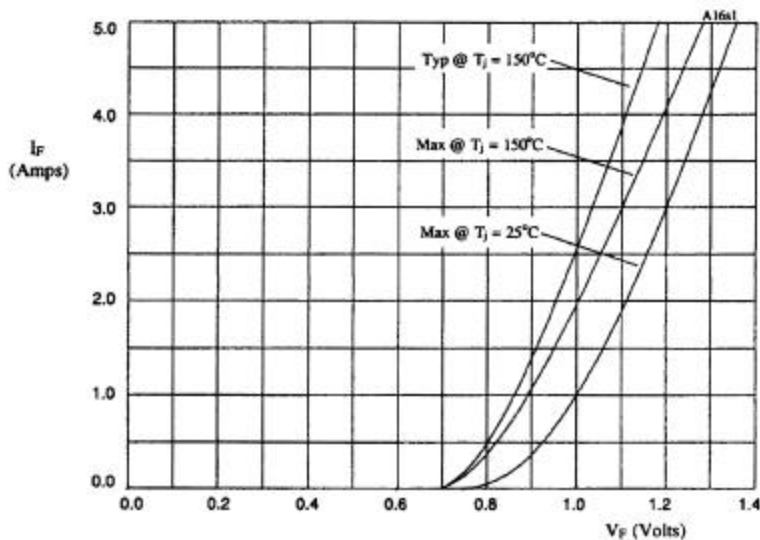


Figure 1. Forward voltage drop as a function of forward current (see Table 1).

TABLE 1

DEVICE	X-AXIS
SCH5000	x5
SCH7500	x8
SCH10000	x10
SCH12500	x13
SCH15000	x15
SCH20000	x20
SCH25000	x25

SENSITRON

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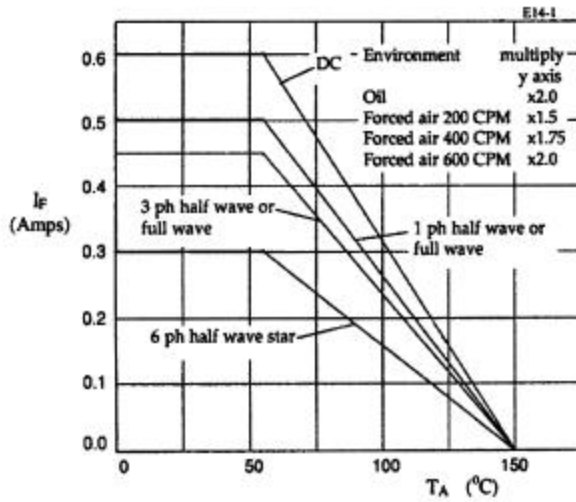


Figure 2. Maximum forward current against ambient temperature.

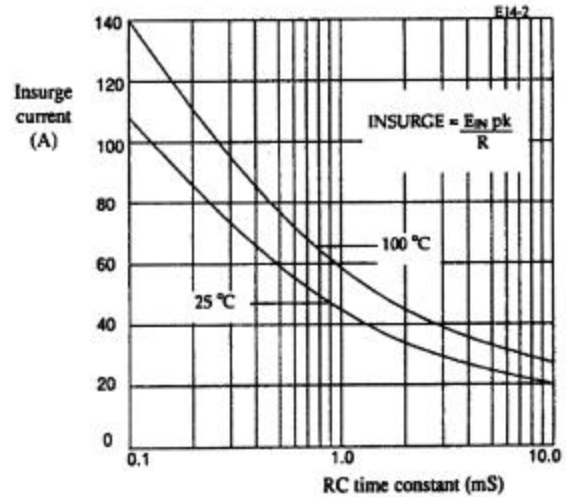


Figure 3. Maximum ratings for capacitive loads. Insurge current versus RC time constant

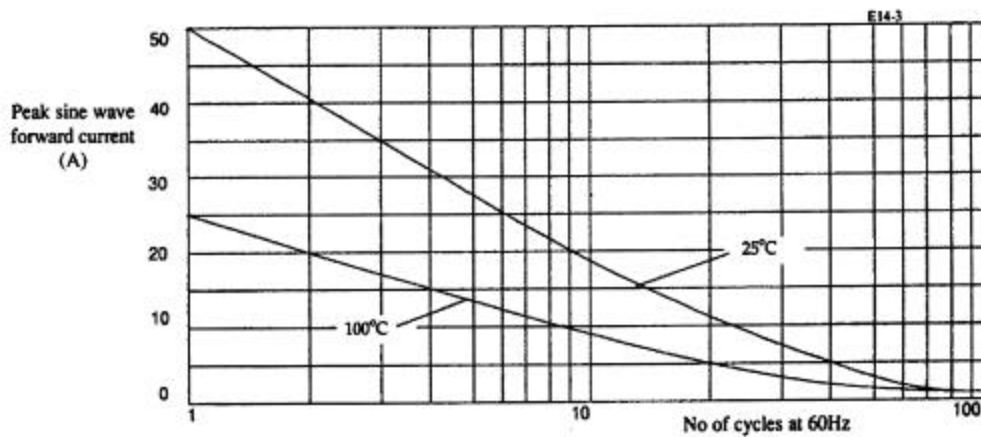


Figure 4. Non repetitive forward current surge curves.