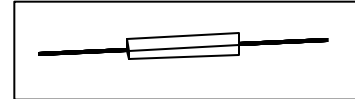


TECHNICAL DATA
DATA SHEET 960, REV. -

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY LEADED INDUSTRIAL GRADE SILICON RECTIFIER ASSEMBLY

FEATURES:

- Low reverse recovery time
 - Low forward voltage drop
 - High thermal shock resistance
 - Corona free construction
 - Low distributed capacitance
- $V_R = 2500V - 12500V$
 - $I_F = 0.5A$
 - $I_R = 1.0mA$
 - $t_{rr} = 150ns$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV) Volts	MAX. AVG. DC OUTPUT CURRENT $I_{F(AV)}$ Amps		REPETITIVE SURGE CURRENT I_{FRM} Amps	1 CYCLE SURGE CURRENT $t_p = 8.3ms$ (sine) I_{FSM} Amps	$\dot{I}t$ $t_p = 8.3ms$ @ 25°C A ² S	PACKAGE LENGTH Inches
		55°C	100°C	25°C	25°C		
		SICF2500	2500				
SICF5000	5000			15	25	2.6	2.020
SICF7500	7500	0.5	0.3				2.770
SICF10000	10000						3.520
SICF12500	12500						4.270

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R μAmps		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F V A		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C nsec
	25°C	100°C			
	SICF2500			3.45	
SICF5000			5.75		
SICF7500	1.0	25	9.20	0.5	150
SICF10000			11.5		
SICF12500			15.0		

Notes:

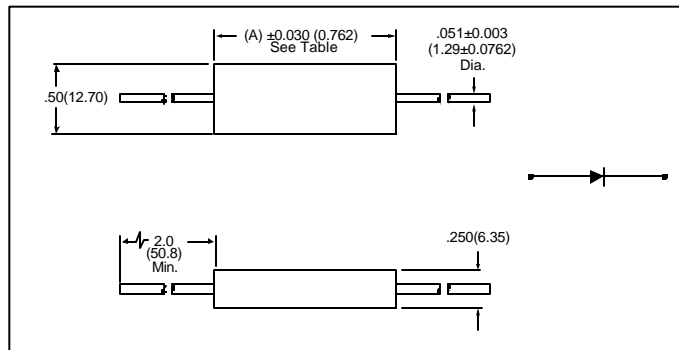
- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- ① Measured on discrete devices prior to assembly.

SENSITRON

TECHNICAL DATA

DATA SHEET 960, REV. -

Mechanical Dimensions in: mm / inches



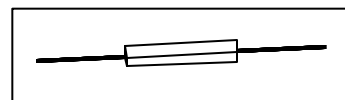
TECHNICAL DATA
DATA SHEET 961, REV. -

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY LEADED INDUSTRIAL GRADE SILICON RECTIFIER ASSEMBLY

FEATURES:

- Low reverse recovery time
- Low reverse leakage current
- High thermal shock resistance
- Corona free construction
- Low distributed capacitance

- $V_R = 2000V - 12000V$
- $I_F = 1.5A$
- $I_R = 5.0mA$
- $t_{rr} = 150ns$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV) Volts	MAX. AVG. DC OUTPUT CURRENT $I_{F(AV)}$ Amps		REPETITIVE SURGE CURRENT I_{FRM} Amps	1 CYCLE SURGE CURRENT $t_p = 8.3ms$ (sine) I_{FSM} Amps	\dot{I}_t $t_p = 8.3ms$ @ 25°C A ² S	PACKAGE LENGTH Inches
		55°C	100°C				
		25°C	25°C				
SICFS2000	2000	1.5	1.0	10	100	40	1.53
SICFS4000	4000						2.53
SICFS6000	6000						3.53
SICFS8000	8000						4.53
SICFS10000	10000						5.53
SICFS12000	12000						6.53

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R μAmps		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F V A		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C nsec
	25°C	100°C	V	A	
	SICFS2000	5.0	25	5.4	
SICFS4000	9.0				
SICFS6000	12.6				
SICFS8000	16.2				
SICFS10000	19.8				
SICFS12000	23.4				

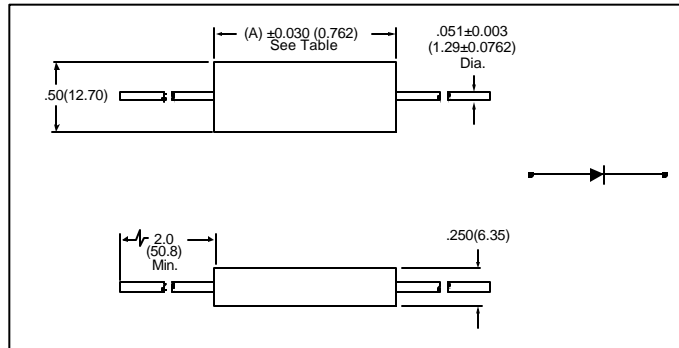
Notes:

- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- ① Measured on discrete devices prior to assembly.

SENSITRON

TECHNICAL DATA
DATA SHEET 961, REV. -

Mechanical Dimensions in: mm / inches



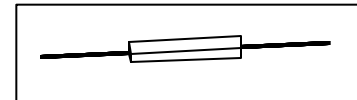
TECHNICAL DATA
DATA SHEET 962, REV. -

HIGH VOLTAGE, HIGH DENSITY, LEADED
INDUSTRIAL GRADE 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) Volts	MAX. AVG. DC OUTPUT CURRENT $I_{F(AV)}$		FORCED AIR @ 600 CFM, 55°C Amps	IN STILL OIL @ 55°C Amps	1 CYCLE SURGE CURRENT I_{FSM} $t_p = 8.3ms$ @ T_{JMAX} Amps	I^2t $t_p = 8.3ms$ @ T_{JMAX} A ² S	REPETITIVE SURGE CURRENT I_{FRM} @ 25°C Amps	PACKAGE LENGTH Inches
		Amps							
		55°C	100°C						
SICH5000	5000								1.145
SICH7500	7500								1.645
SICH10000	10000	0.5	0.33	1.0	1.0	30	12	10	2.020
SICH12500	12500								2.395
SICH15000	15000								2.770
SICH20000	20000								3.520
SICH25000	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 µsec
	µAmps		V	A	
	25°C	100°C			
SICH5000			5.0		5.0
SICH7500			8.0		
SICH10000	1.0	20	10.0	1.0	
SICH12500			13.0		
SICH15000			15.0		
SICH20000			20.0		
SICH25000			25.0		

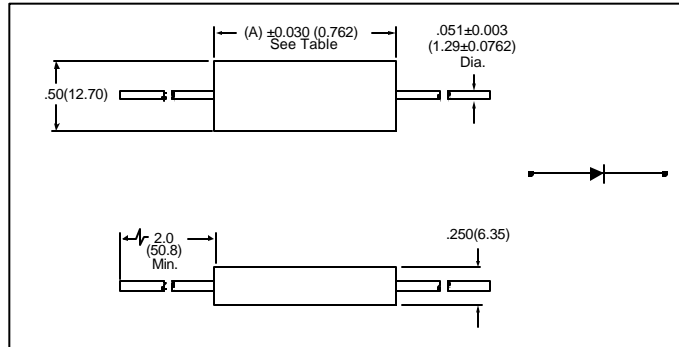
Notes:

- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- ① Measured on discrete devices prior to assembly.

SENSITRON

TECHNICAL DATA
DATA SHEET 962, REV. -

Mechanical Dimensions in: mm / inches

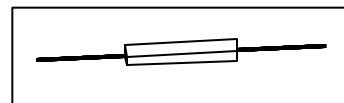


TECHNICAL DATA
DATA SHEET 963, REV. -

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

FEATURES:

- Low forward voltage drop
 - Low reverse leakage current
 - High thermal shock resistance
 - Corona free construction
 - Low distributed capacitance
- $V_R = 2500V - 15000V$
 - $I_F = 2.0A$
 - $I_R = 1.0mA$
 - $I_{FSM} = 80A$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV) Volts	MAX. AVG. DC OUTPUT CURRENT $I_{F(AV)}$ Amps		FORCED AIR @ 600 CFM, 55°C Amps	IN STILL OIL @ 55°C Amps	1 CYCLE SURGE CURRENT I_{FSM} $t_p = 8.3ms$ @ T_{JMAX} Amps	I^2t $t_p = 8.3ms$ @ T_{JMAX} A ² S	REPETITIVE SURGE CURRENT I_{FRM} @ 25°C Amps	PACKAGE LENGTH Inches
		55°C	100°C						
SICHS2500	2500	2.0	1.2	2.0	4.0	80	26	31	1.53
SICHS5000	5000								2.53
SICHS7500	7500								3.53
SICHS10000	10000								4.53
SICHS12500	12500								5.53
SICHS15000	15000								6.53

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R μAmps		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F V A		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C μsec
	25°C	100°C	V	A	
	SICHS2500	1.0	10	3.45	3.0
SICHS5000	5.75				
SICHS7500	9.20				
SICHS10000	11.50				
SICHS12500	14.95				
SICHS15000	18.40				

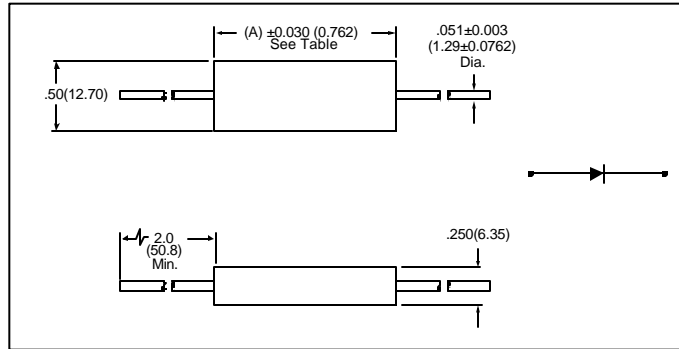
Notes:

- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- ① Measured on discrete devices prior to assembly.

SENSITRON

TECHNICAL DATA
DATA SHEET 963, REV. -

Mechanical Dimensions in: mm / inches

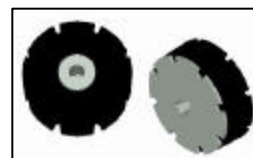


TECHNICAL DATA
DATA SHEET 964, REV. -

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY INDUSTRIAL GRADE MODULAR RECTIFIER ASSEMBLY

FEATURES:

- Low reverse recovery time
 - Low reverse leakage currents
 - High thermal shock resistance
 - Modular construction
 - Low distributed capacitance
- $V_R = 2500V - 7500V$
 - $I_F = 0.8 - 2.4A$
 - $I_{FSM} = \text{up to } 130A$
 - $t_{rr} = 150ns$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV)	MAX. AVG. DC OUTPUT CURRENT (AIR) $I_{F(AV)}$		STUD TO HEAT-SINK @ 25°C	IN STILL OIL @ 55°C	1 CYCLE SURGE CURRENT $T I_{FSM}$ $t_p = 8.3ms$ @ T_{JMAX}	I^2t $t_p = 8.3ms$	REPETITIVE SURGE CURRENT I_{FRM} @ 25°C
		Amps						
		25°C	100°C					
SI2HVM2.5F	2500	2.0	0.8	2.0	2.0	32	4.25	11
SI2HVM5F	5000	1.2	0.5	2.0	2.0	32	4.25	11
SI2HVM7.5	7500	0.8	0.3	1.5	2.0	32	4.25	11
SI3HVM2.5F	2500	2.4	1.0	3.0	3.0	70	20	20
SI3HVM5F	5000	1.2	0.5	2.5	3.0	70	20	20
SI6HVM2.5F	2500	2.4	1.0	5.0	6.0	130	70	35

MAXIMUM THERMAL IMPEDANCES

Junction to Ambient	$R_{\theta JC} < 12^\circ C/W$
Junction to Stud	$R_{\theta JS} < 6^\circ C/W$
Junction to Oil	$R_{\theta JO} < 4.5^\circ C/W$

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C
	I_R				
	μAmps		V	A	
	25°C	100°C			
SI2HVM2.5F	1.0	25.0	6.0	@ 1.0	150
SI2HVM5F	1.0	25.0	12	@ 1.0	
SI2HVM7.5F	1.0	25.0	18	@ 1.0	
SI3HVM2.5F	5.0	25.0	6.0	@ 3.0	
SI3HVM5F	5.0	25.0	12	@ 3.0	
SI6HVM2.5F	10.0	50.0	6.0	@ 6.0	

Notes:

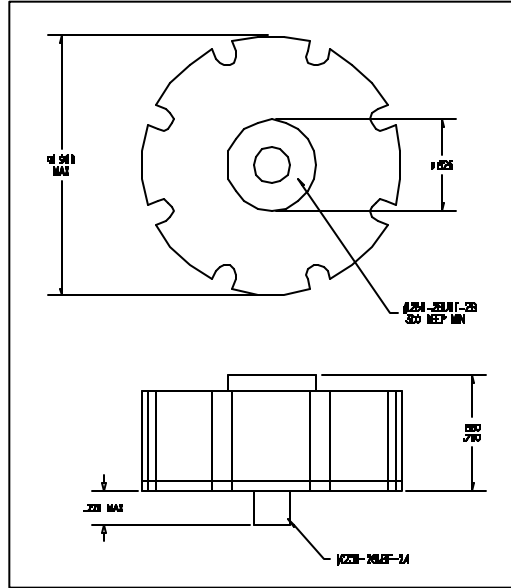
- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- (Temperature range is given for Hermetic Diodes)
- ① Measured on discrete devices prior to assembly.

SI2HVM2.5F SI3HVM2.5F
SI2HVM5F SI3HVM5F
SI2HVM7.5F SI6HVM2.5F

SENSITRON

TECHNICAL DATA
DATA SHEET 964, REV. -

Mechanical Dimensions in: mm / inches



TECHNICAL DATA
DATA SHEET 965, REV. -

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY MODULAR RECTIFIER ASSEMBLY

FEATURES:

- Up to 15kV reverse voltage
 - Low reverse leakage current
 - High thermal shock resistance
 - Modular construction
 - Provides design versatility
- $V_R = 2500V - 15000V$
 - $I_F = 500mA$ (air)
 - $I_R = 1.0mA$
 - $I_{FSM} = 20A$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV) Volts	MAX. AVG. DC OUTPUT CURRENT (AIR) $I_{F(AV)}$ Amps		STUD TO HEAT-SINK @ 25°C Amps	IN STILL OIL @ 55°C Amps	1 CYCLE SURGE CURRENT I_{FSM} $t_p = 8.3ms$ Amps 25°C	REPETITIVE SURGE CURRENT I_{FRM} @ 25°C Amps	$\dot{I}t$ $t_p = 8.3ms$ @ 25°C A ² S
		25°C	100°C					
SIHVM2.5 SIHVM5 SIHVM7.5 SIHVM10 SIHVM12.5 SIHVM15	2500 5000 7500 10000 12500 15000	0.5	0.2	0.5	0.5	20	8.0	1.67

MAXIMUM THERMAL IMPEDANCES

- Junction to Ambient $R_{\theta JC} < 12^\circ C/W$
 Junction to Stud $R_{\theta JS} < 6^\circ C/W$
 Junction to Oil $R_{\theta JO} < 4.5^\circ C/W$

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R $\mu Amps$		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C μsec
	25°C	100°C	V	A	
SIHVM2.5 SIHVM5 SIHVM7.5 SIHVM10 SIHVM12.5 SIHVM15	1.0	50	7.0 14.0 21.0 28.0 35.0 42.0	0.8	2.0

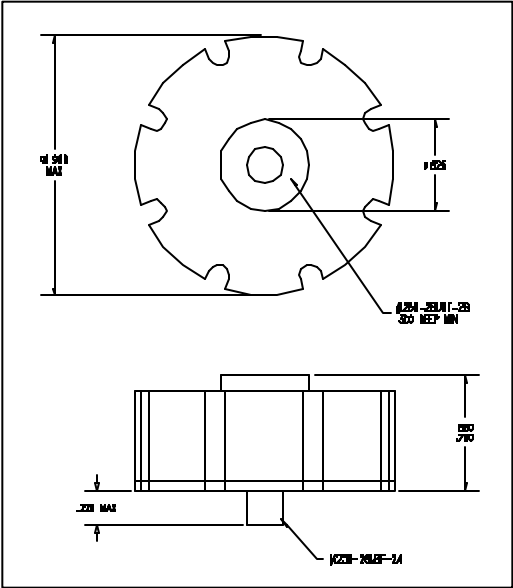
Notes:

- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- (Temperature range is given for Hermetic Diodes)
- ① Measured on discrete devices prior to assembly.

SENSITRON

TECHNICAL DATA
DATA SHEET 965, REV. -

Mechanical Dimensions in: mm / inches



TECHNICAL DATA
DATA SHEET 966, REV. -

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY INDUSTRIAL GRADE MODULAR RECTIFIER ASSEMBLY

FEATURES:

- Up to 15kV reverse voltage
 - Low reverse leakage current
 - High thermal shock resistance
 - Modular construction
 - Provides design versatility
- $V_R = 2500V - 15000V$
 - $I_F = 0.8 - 2.0A$ (air)
 - $I_R = 1.0mA$
 - $I_{FSM} = 50A$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV) Volts	MAX. AVG. DC OUTPUT CURRENT (AIR) $I_{F(AV)}$ Amps		STUD TO HEAT-SINK @ 25°C Amps	IN STILL OIL @ 55°C Amps	1 CYCLE SURGE CURRENT I_{FSM} $t_p = 8.3ms$ Amps	REPETITIVE SURGE CURRENT I_{FRM} @ 25°C Amps	$\dot{I}t$ $t_p = 8.3ms$ @ 25°C A ² S
		25°C	100°C					
		Amps						
SI2HVM2.5	2500	2.0	0.8	2.0				
SI2HVM5	5000	2.0	0.8	2.0				
SI2HVM7.5	7500	2.0	0.8	2.0	2.0	50	12.0	10.0
SI2HVM10	10000	1.2	0.5	2.0				
SI2HVM12.5	12500	1.0	0.4	2.0				
SI2HVM15	15000	0.8	0.3	1.5				

MAXIMUM THERMAL IMPEDANCES

Junction to Ambient	$R_{\theta JC} < 12^\circ C/W$
Junction to Stud	$R_{\theta JS} < 6^\circ C/W$
Junction to Oil	$R_{\theta JO} < 4.5^\circ C/W$

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV I_R $\mu Amps$		MAXIMUM PEAK FORWARD VOLTAGE $V_F @ I_F$ @ 25°C		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C μsec
	25°C	100°C	V	A	
SI2HVM2.5			3.3		2.5
SI2HVM5			5.5		
SI2HVM7.5	1.0	20	8.8	2.0	
SI2HVM10			11.1		
SI2HVM12.5			14.4		
SI2HVM15			16.6		

Notes:

- Operating temperature range -40 to +125°C.
- Storage temperature range -40 to +125°C.
- (Temperature range is given for Hermetic Diodes)
- ① Measured on discrete devices prior to assembly.

SI2HVM2.5 SI2HVM10
SI2HVM5 SI2HVM12.5
SI2HVM7.5 SI2HVM15

SENSITRON

TECHNICAL DATA
DATA SHEET 966, REV. -

Mechanical Dimensions in: mm / inches

