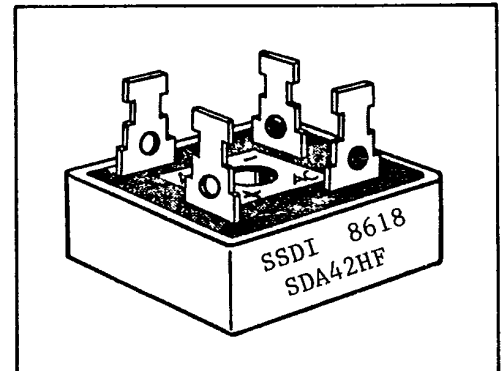


SDA42HF

T-23-07

14.5 AMP RECTIFIER ASSEMBLY

- Average Output Current 14.5 Amps
- PIV 50 to 600 Volts
- Reverse Recovery Time *40ns Max
- Max Thermal Resistance Junction to Case 1.5°C/Watt
- All Welded Interconnects
- Hermetically Sealed Diode Cells
- Universal 3 Way Terminals
- Aluminum Case



SSDI introduces a new and complete line of Single Phase, Hyper Fast Rectifier Bridge Assemblies. Designed in aluminum cases to provide maximum thermal conductivity and simple operation. A unique 3 way terminal provides the designer a choice of using Faston terminals, wire wrap or soldering hole. This series features SSDI's exclusive glass passivated rectifier cells and welded interconnects for high reliability and mechanical strength. Ultra Fast and Standard Recovery Bridges are also available.

Consult your factory representative for engineering assistance.

Type	PIV per leg	Sine Wave RMS input Voltage Max.	Average DC Output Amps TC = (case temp.)		Reverse Recovery Time * T _{rr}	Average DC Output Amps TA = Ambient Temp (No heat Sink)		Peak 1 Cycle Forward Surge	Peak Recurrent Forward	VF Max per leg @ ADC 3	Reverse Current (I _R Max. per leg. @ PIV)	
			50°C	100°C		25°C	55°C				25°C	100°C
			AMPS	AMPS		AMPS	AMPS				UA	UA
SDA42AHF	50	35	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42BHF	100	70	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42CHF	200	140	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42DHF	300	210	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42EHF	400	280	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42FHF	500	350	14.5	10.5	40	5	4	75	25	1.35	10	1000
SDA42GHF	600	420	14.5	10.5	40	5	4	75	25	1.35	10	1000

Higher Voltages Are Available. Contact Factory.

NOTE: Specifications Subject to Change Without Notice.
*Recovery Time Conditions; I_F = .5A, I_R = 1A, I_{rr} = .25A

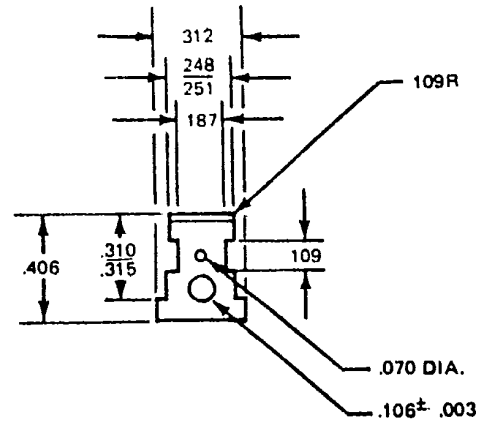
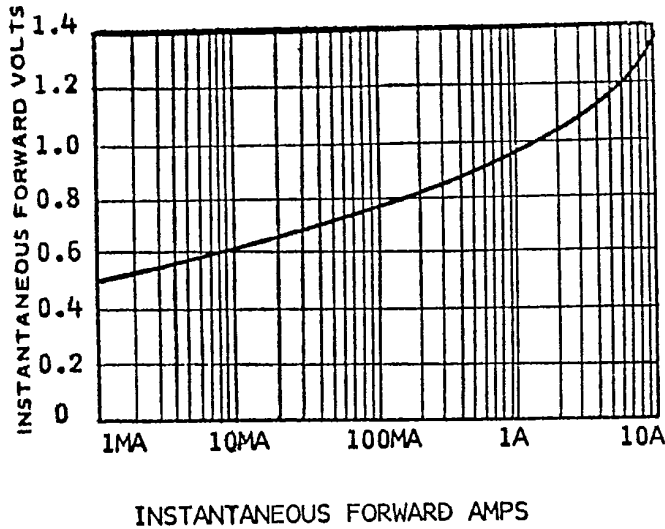
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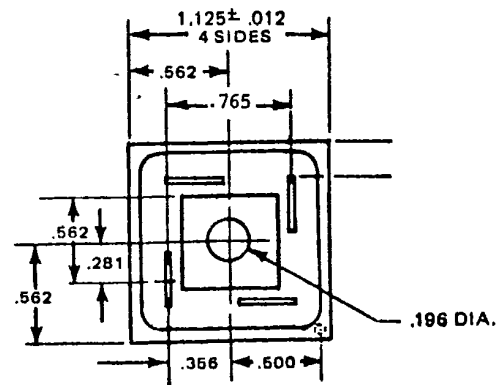
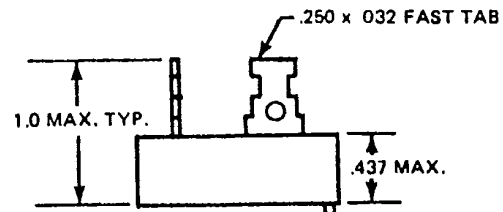
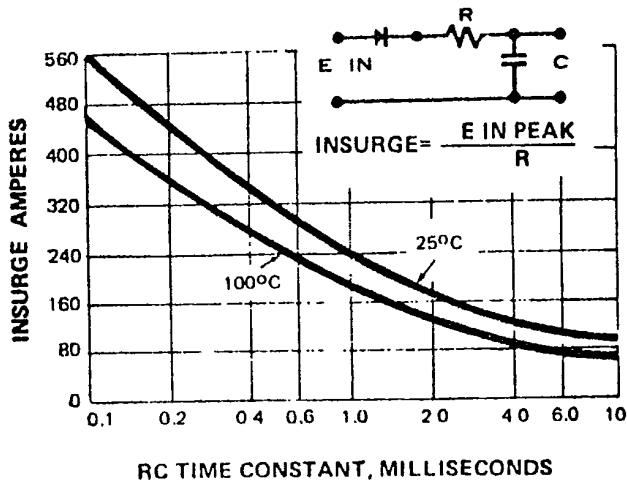


application notes

TYPICAL DYNAMIC FORWARD CHARACTERISTICS



MAXIMUM RATINGS FOR CAPACITY LOADS



TOLERANCE XX ± .03
 XXX ± .020
 FRACTIONAL = NOMINAL DIMENSION

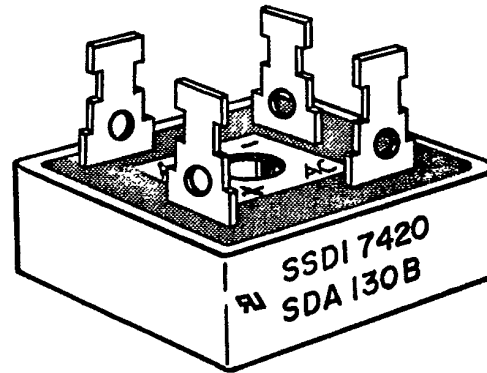


SOLID STATE DEVICES, INC.

T-23-07

SSDI Bridge Rectifier Assembly

SINGLE PHASE 25 AMPS SDA 130 SERIES



- Average Output Current 25 Amps
- PIV 50 to 1000 Volts
- Max. Thermal Resistance 1.5°C/Watt*
- All Welded Interconnects
- Hermetically Sealed Diode Cells
- Universal 3 Way Terminals
- Aluminum Case

SSDI introduces a new and complete line of Single Phase, Rectifier Bridge Assemblies. Designed in aluminum cases to provide maximum thermal conductivity and simple operation. A unique 3 way terminal provides the designer a choice of using Faston terminals, wire wrap or soldering hole. This series features SSDI's exclusive glass passivated rectifier cells and welded interconnects for high reliability and mechanical strength. Fast recovery bridges are available on special order.

Consult your factory representative for engineering assistance.

Type	PIV per leg	Sine Wave RMS input Voltage Max	Average DC Output Amps TC = (case temp.)			Average DC Output Amps TA = Ambient Temp. (No heat Sink)			Peak 1 Cycle Forward surge	Peak Recurrent Forward	VF Max per leg @ 5 ADC	Reverse Current I _R Max. per leg @ PIV)	
			55°C	100°C	125°C	25°C	55°C	100°C				25°C	100°C
	VOLTS	VOLTS	AMPS	AMPS	AMPS	AMPS	AMPS	AMPS	AMPS	AMPS	VOLTS	UA	UA
SDA 130A	50	35	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130B	100	70	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130C	200	140	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130D	400	280	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130E	600	420	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130F	800	560	17.5	12.5	9.0	6	5	3	150	100	1	5	100
SDA 130G	1000	700	17.5	12.5	9.0	6	5	3	150	100	1	5	100

NOTE: All specifications subject to change without notice.

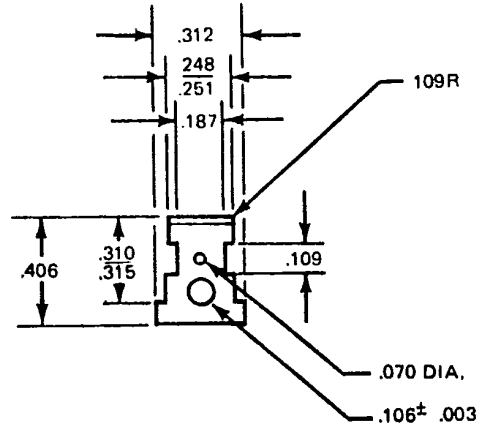
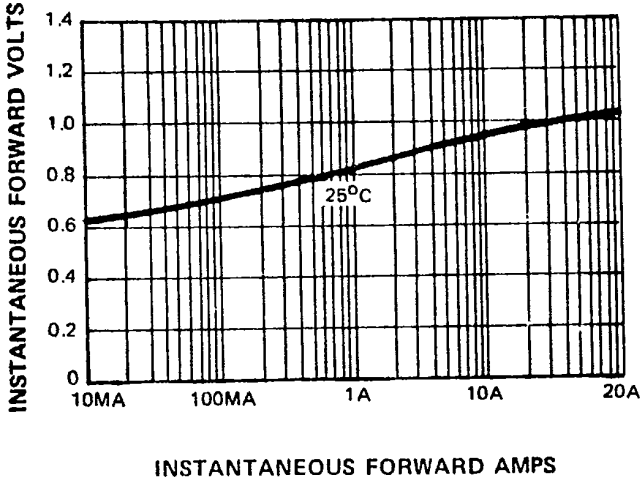
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*Junction to Case

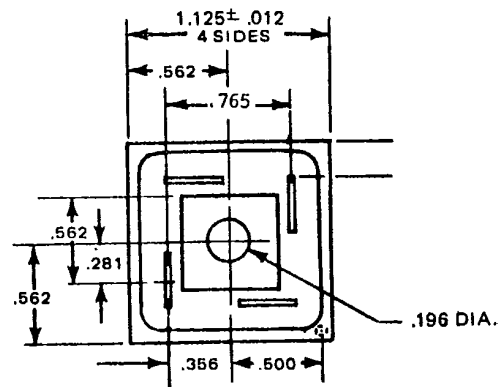
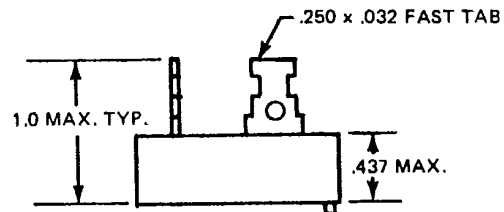
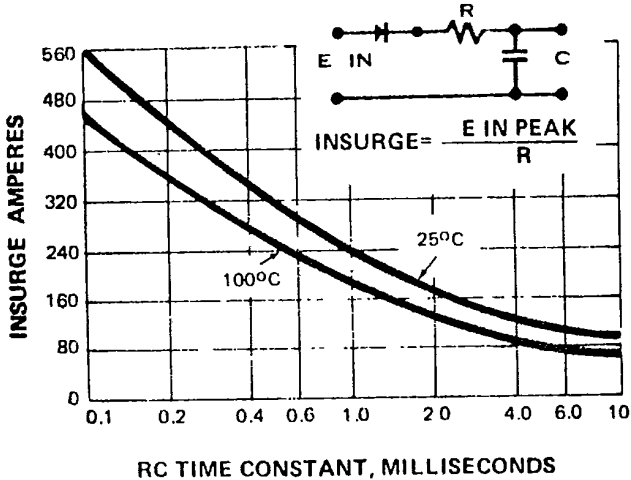


application notes

TYPICAL DYNAMIC FORWARD CHARACTERISTICS AT VARIOUS JUNCTION TEMPERATURES PER LEG



MAXIMUM RATINGS FOR CAPACITY LOADS



TOLERANCE XX ± .03
 XXX ± .020
 FRACTIONAL = NOMINAL DIMENSION

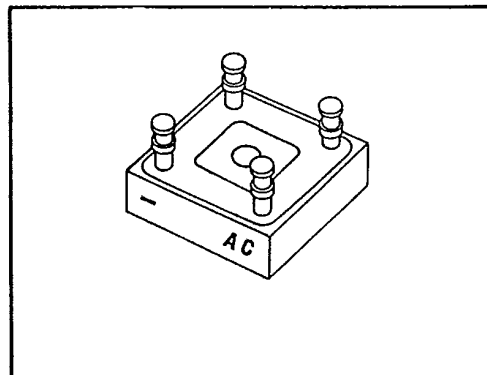


SOLID STATE DEVICES, INC.

ULTRA FAST SDA18A THRU G T-23-07

35 AMP RECTIFIER ASSEMBLY

- ULTRA FAST RECOVERY 50 ns MAX
- CURRENT RATINGS: TO 35 AMPS
- SURGE CURRENT: TO 300 AMPS
- PIVS FROM 200V to 800V
- OPERATING & STORAGE TEMPERATURE RANGE
-65°C TO +150°C
- THERMAL RESISTANCE JUNCTION TO CASE
1.5°C/W MAX
- ALUMINUM HEAT SINK CASE
- ELECTRICALLY INSULATED FROM CASE
- HERMETICALLY SEALED VOID FREE RECTIFIER CELLS



This series of single phase bridges offers the highest efficiency possible at rated current and voltages. This series replaces four DO-4 rectifiers, simplifying installation and reducing heat sink requirements. This series of military and industrial high-current single-phase bridges offers the utmost in reliability as required in military system designs. The TX series is assembled with diodes which have been subjected to 100% screening tests.

Type	PIV per leg	Sine Wave RMS input Voltage Max.	Average DC Output Amps TC = (case temp.)		Reverse * Recovery Time T_{rr}	Average DC Output Amps T_A = Ambient Temp (No heat sink)		Peak 1 Cycle Forward Surge	Peak Recurrent Forward	VF Max per leg @10 ADC	Reverse Current (I_R Max. per leg. @ PIV)	
			50°C	100°C		25°C	55°C				25°C	100°C
	VOLTS	VOLTS	AMPS	AMPS	ns	AMPS	AMPS	AMPS	AMPS	VOLTS	UA	UA
SDA18A	200	140	35	25	50	12	10	300	150	1.3	20	1000
SDA18B	300	210	35	25	50	12	10	300	150	1.3	20	1000
SDA18C	400	280	35	25	50	12	10	300	150	1.3	20	1000
SDA18D	500	350	35	25	50	12	10	300	150	1.3	20	1000
SDA18E	600	420	35	25	50	12	10	300	150	1.3	20	1000
SDA18F	700	490	35	25	50	12	10	300	150	1.5	20	1000
SDA18G	800	560	35	25	50	12	10	300	150	1.5	20	1000

NOTE: Specifications Subject to Change Without Notice

*Recovery Conditions: $I_F = 0.5$ Amp, $I_R = 1.0$ Amp rec to .25 Amp

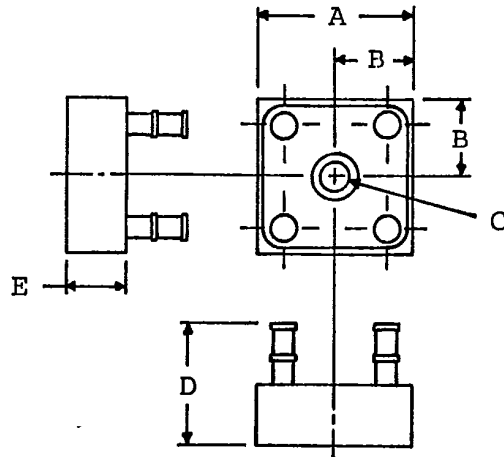
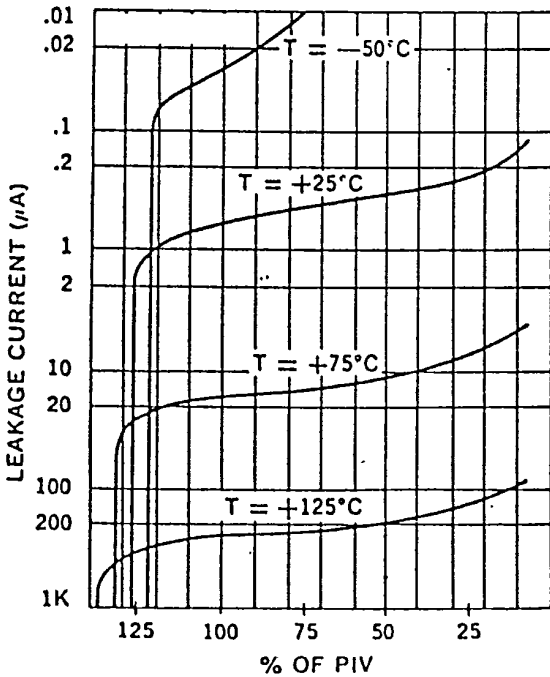
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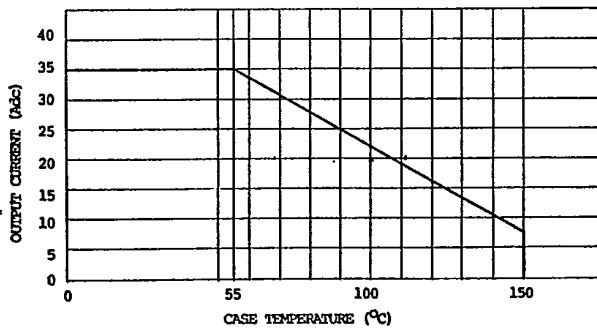


APPLICATION NOTES

Typical Leakage Current vs. PIV



CURRENT DERATING CURVE



	ins.	mm.
A	1.115-1.135	28.32-28.83
B	.552-572	14.02-14.53
C	.180-.200 DIA	4.57-5.08 DIA
D	1.0 MAX.	19.05 MAX.
E	.437±.02	10.59 to 11.61



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