

T-01-15

SAM15 THRU SAM40

2 AMP, HIGH VOLTAGE

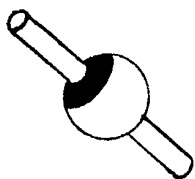
STANDARD RECOVERY RECTIFIER

1500-4000 VOLTS



14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
FAX 213-921-2396

CASE STYLE



FEATURES

- HERMETICALLY SEALED GLASS PACKAGE
- SOLID SILVER LEADS
- 175° OPERATING MAXIMUM TEMPERATURE
- MATCHED JUNCTION CHARACTERISTICS
- METALLURGICALLY BONDED JUNCTIONS
- SUBMINIATURE PACKAGE

ELECTRICAL CHARACTERISTICS

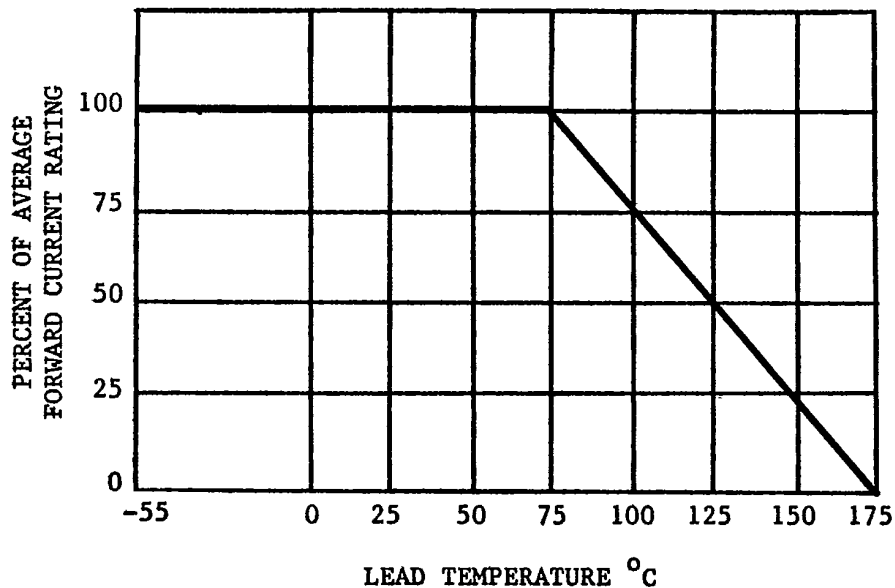
PART NUMBER	PEAK INVERSE VOLTAGE PIV	AVERAGE RECTIFIED CURRENT I _O		MAXIMUM REVERSE CURRENT @ PIV I _R		MAXIMUM FORWARD VOLTAGE @55°C I _O V _F	MAX SURGE CURRENT 1 CYCLE I _{FS}	MAX REVERSE RECOVERY TIME T _{RR} *	MAXIMUM JUNCTION CAPACITANCE C _J	TYPICAL THERMAL IMPEDANCE θ _{J-L}
		55°C	100°C	25°C	100°C					
	VOLTS	AMPS	AMPS	uA	uA	VOLTS	AMPS	usec.	pf	°C/W
SAM 15	1500	2	1.5	1.0	25	5.5	60	5	15	8.0
SAM 20	2000	2	1.5	1.0	25	5.5	60	5	15	8.0
SAM 25	2500	2	1.5	1.0	25	5.5	60	5	15	8.0
SAM 30	3000	2	1.5	1.0	25	5.5	60	5	15	8.0
SAM 35	3500	2	1.5	1.0	25	5.5	60	5	15	8.0
SAM 40	4000	2	1.5	1.0	25	5.5	60	5	15	8.0

*Reverse recovery test conditions: I_F= .5A, I_R= 1A, I_{RR}= .25A.

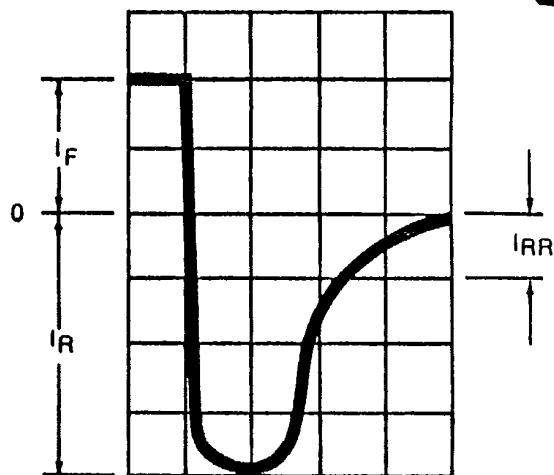
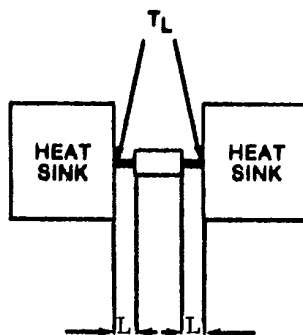
1. Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
2. Maximum forward voltage measured with instantaneous forward pulse of 8.3 ms.
3. Maximum lead temperature for soldering is 250°C, 3/8 inch from case for 5 seconds maximum.
4. Operating and storage temperature -65° to +175°C.

NOTE: All specifications subject to change without notice.

MAXIMUM FORWARD CURRENT VS. LEAD TEMPERATURE



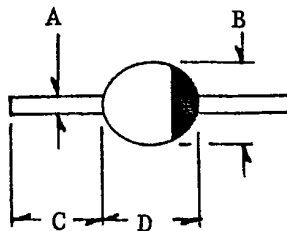
REVERSE RECOVERY WAVE FORM

THERMAL IMPEDANCE
● J-L INFORMATION

HEAT SINKS ARE INFINITE
 T_L = LEAD TEMP. ADJACENT TO
 HEAT SINK

T_J = TEMP. OF CENTER JUNCTION.
 EXPOSED PORTION OF LEADS
 SHALL BE FREE OF PAINT,
 GREASE, OR COATINGS OF
 ANY KIND.

BODY MATERIAL= GLASS
 LEAD MATERIAL= SILVER



A= .060 $\pm$.003 DIA.

B= .30 MAX.

C= .40 MIN.

D= .30 $\pm$.020

SSD II SOLID STATE DEVICES, INC.

SAM15F THRU SAM40F

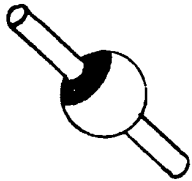
1.5 AMP, HIGH VOLTAGE FAST RECOVERY RECTIFIER

1500-4000 VOLTS



14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
FAX 213-921-2396

CASE STYLE



FEATURES

- HERMETICALLY SEALED GLASS PACKAGE
- SOLID SILVER LEADS
- 175° OPERATING MAXIMUM TEMPERATURE
- MATCHED JUNCTION CHARACTERISTICS
- METALLURGICALLY BONDED JUNCTIONS
- SUBMINIATURE PACKAGE

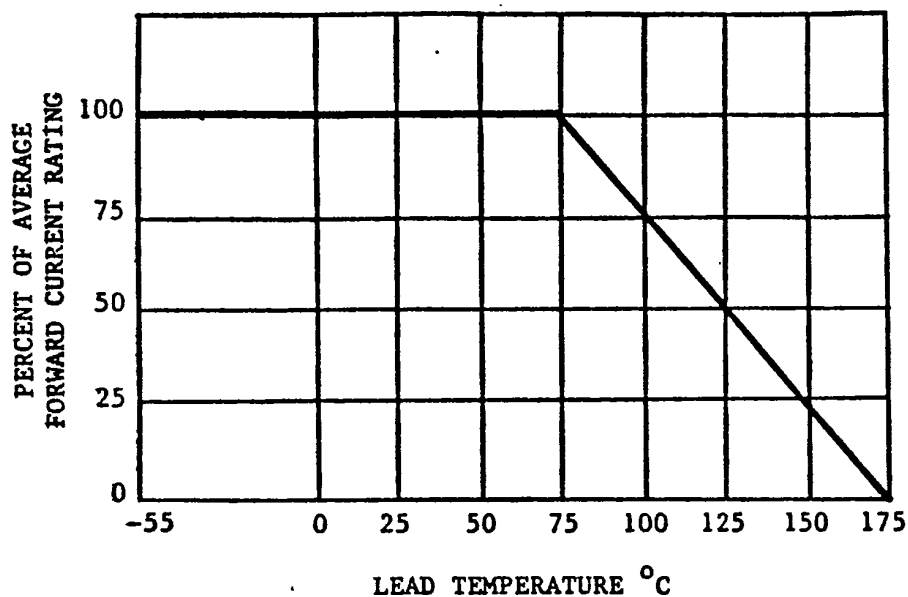
PART NUMBER	PEAK INVERSE VOLTAGE PIV	AVERAGE RECTIFIED CURRENT I _O		MAXIMUM REVERSE CURRENT @ PIV I _R		MAXIMUM FORWARD VOLTAGE @55°C I _O V _F	MAX SURGE CURRENT 1 CYCLE I _{FS}	MAX REVERSE RECOVERY TIME T _{RR} *	MAXIMUM JUNCTION CAPACITANCE C _J	TYPICAL THERMAL IMPEDANCE θ _{J-L}
		55°C	100°C	25°C	100°C					
	VOLTS	A	A	uA	uA	VOLTS	AMPS	nsec	pf	°C/W
SAM 15F	1500	1.5	1.2	1.0	25	6.5	60	150	15	10
SAM 20F	2000	1.5	1.2	1.0	25	6.5	60	150	15	10
SAM 25F	2500	1.5	1.2	1.0	25	6.5	60	150	15	10
SAM 30F	3000	1.5	1.2	1.0	25	6.5	60	150	15	10
SAM 35F	3500	1.5	1.2	1.0	25	6.5	60	150	15	10
SAM 40F	4000	1.5	1.2	1.0	25	6.5	60	150	15	10

*Reverse recovery test conditions: I_F= .5A, I_R= 1A, I_{RR}= .25A.

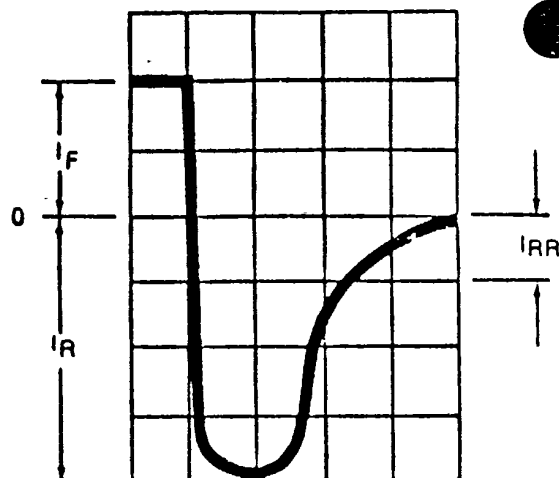
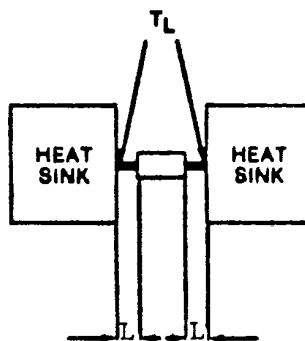
1. Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
2. Maximum forward voltage measured with instantaneous forward pulse of 8.3 ms.
3. Maximum lead temperature for soldering is 250°C, 3/8 inch from case for 5 seconds maximum.
4. Operating and storage temperature -65° to +175°C.

NOTE: All specifications subject to change without notice.

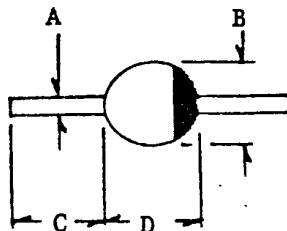
MAXIMUM FORWARD CURRENT VS. LEAD TEMPERATURE



REVERSE RECOVERY WAVE FORM

THERMAL IMPEDANCE
• J-L INFORMATION

HEAT SINKS ARE INFINITE

 T_L = LEAD TEMP. ADJACENT TO
HEAT SINK T_J = TEMP. OF CENTER JUNCTION
EXPOSED PORTION OF LEADS
SHALL BE FREE OF PAINT,
GREASE, OR COATINGS OF
ANY KIND.BODY MATERIAL= GLASS
LEAD MATERIAL= SILVERA= .060 $\pm$.003 DIA.

B= .30 MAX.

C= .40 MIN.

D= .30 $\pm$.020**SSD II**

SOLID STATE DEVICES, INC.

SAM15UF THRU SAM35UF

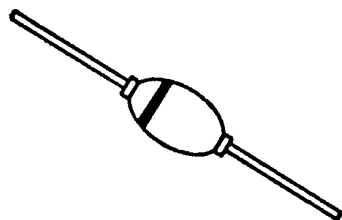
1 AMP, HIGH VOLTAGE ULTRA FAST RECOVERY RECTIFIER

1500-3500 VOLTS



14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
FAX 213-921-2396

CASE STYLE



FEATURES

- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- SUBMINIATURE PACKAGE
- HIGH CURRENT
- AVALANCHE CHARACTERISTICS
- LOW LEAKAGE @ 100°C
- HI REL VERSIONS AVAILABLE

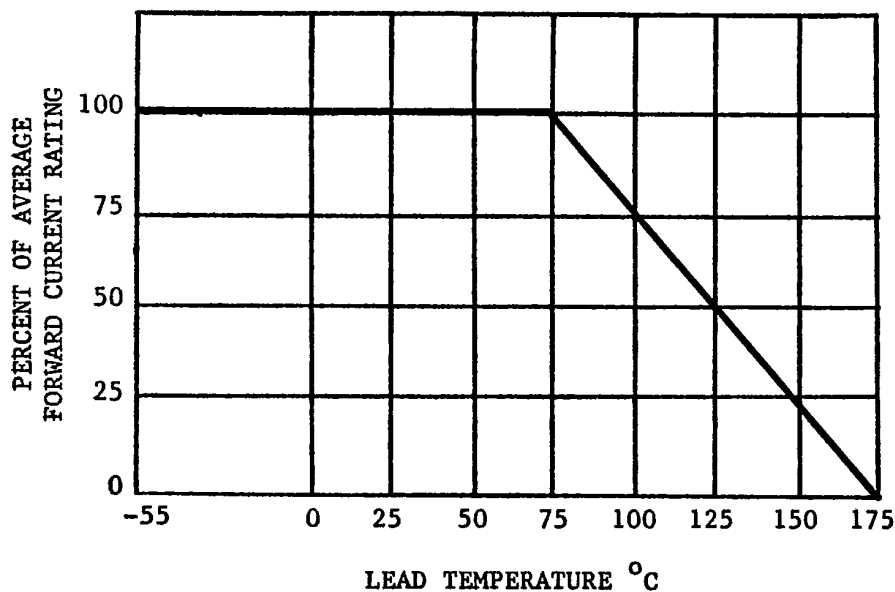
PART NUMBER	PEAK INVERSE VOLTAGE PIV	AVERAGE RECTIFIED CURRENT I_O		MAXIMUM REVERSE CURRENT @ PIV I_R		MAXIMUM FORWARD VOLTAGE @55°C I_O V_F	MAX SURGE CURRENT 1 CYCLE I_{FS}	MAX REVERSE RECOVERY TIME T_{RR}^*	MAXIMUM JUNCTION CAPACITANCE C_J	TYPICAL THERMAL IMPEDANCE θ_{J-L}
		55°C	100°C	25°C	100°C					
	VOLTS	AMPS	mA	uA	uA	VOLTS	AMPS	nsec	pf	°C/W
SAM 15UF	1500	1	600	1.0	25	7.5	60	60	15	10
SAM 20UF	2000	1	600	1.0	25	7.5	60	60	15	10
SAM 25UF	2500	1	600	1.0	25	7.5	60	60	15	10
SAM 30UF	3000	1	600	1.0	25	7.5	60	60	15	10
SAM 35UF	3500	1	600	1.0	25	7.5	60	60	15	10

*Reverse recovery test conditions: $I_F = .5A$, $I_R = 1A$, $IRR = .25A$.

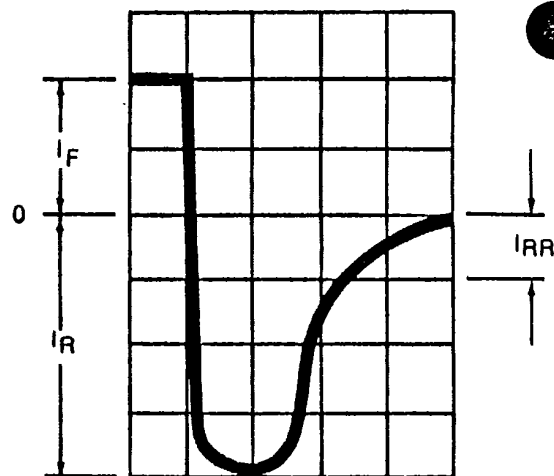
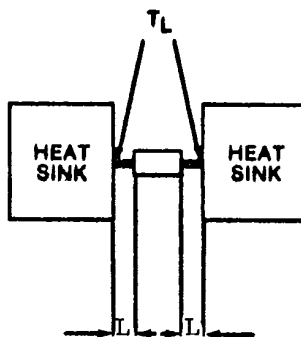
1. Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
2. Maximum forward voltage measured with instantaneous forward pulse of 8.3 ms.
3. Maximum lead temperature for soldering is 250°C, 3/8 inch from case for 5 seconds maximum.
4. Operating and storage temperature -65° to +175°C.

NOTE: All specifications subject to change without notice.

MAXIMUM FORWARD CURRENT VS. LEAD TEMPERATURE



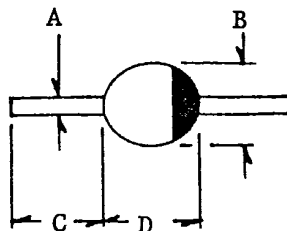
REVERSE RECOVERY WAVE FORM

THERMAL IMPEDANCE
Θ_{J-L} INFORMATION

HEAT SINKS ARE INFINITE
 T_L = LEAD TEMP. ADJACENT TO
 HEAT SINK

T_J = TEMP. OF CENTER JUNCTION.
 EXPOSED PORTION OF LEADS
 SHALL BE FREE OF PAINT,
 GREASE, OR COATINGS OF
 ANY KIND.

BODY MATERIAL= GLASS
 LEAD MATERIAL= SILVER



A= .060 $\pm$.003 DIA.

B= .30 MAX.

C= .40 MIN.

D= .30 $\pm$.020



SOLID STATE DEVICES, INC.