

## 1A Standard Recovery Rectifiers

*Qualified per MIL-PRF-19500/286*

### DESCRIPTION:

This voidless hermetically sealed standard recovery rectifier diode series is military qualified per MIL-PRF-19500/286 and is targeted for commercial and military aircraft, military vehicles, shipboard markets and all high reliability applications.

### FEATURES / BENEFITS:

- ✓ Hermetic, non-cavity glass package
- ✓ Category I Metallurgically bonded
- ✓ All devices are 100% hot solder dipped
- ✓ JAN/ JANTX/ JANTXV available per MIL-PRF-19500/286
- ✓ JANS Plus removes atypical/out of family  $V_F$

### MAXIMUM RATINGS

- ✓ Operating and Storage Temperature:  $-65^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$
- ✓ Thermal Resistance:  $42^{\circ}\text{C}$  (junction to lead)
- ✓ Forward surge current: 25A @ 8.3 ms half-sine

### ELECTRICAL CHARACTERISTICS

TYPE NUMBER	PEAK INVERSE VOLTAGE	AVG RECTIFIED CURRENT	MAXIMUM REVERSE CURRENT @ PIV		MAX. PEAK FORWARD VOLTAGE (PULSED) $V_F$ @ 3A	MAXIMUM SURGE CURRENT <sup>1</sup> $I_{FSM}$	MAXIMUM REVERSE RECOVERY TIME <sup>2</sup> $T_{rr}$
		Amps	$\mu\text{Amps}$	$25^{\circ}\text{C}$			
	Volts	$55^{\circ}\text{C}$	$25^{\circ}\text{C}$	$150^{\circ}\text{C}$	V	Amps	nsec
1N4245/US	200	1.0	1.0	150	1.3	25	5000
1N4246/US	400						
1N4247/US	600						
1N4248/US	800						
1N4249/US	1000						

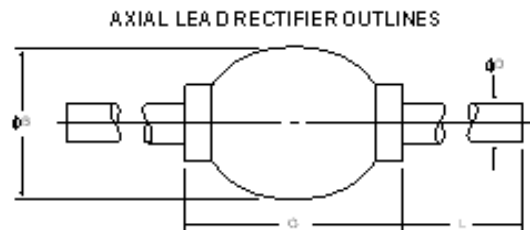
Note 1:  $I_o = 1\text{A}$ , 8ms surge

Note 2:  $I_F = 0.5\text{A}$ ,  $I_{rm} = 1\text{A}$ ,  $I_{r(REC)} = .250\text{A}$

\*Sensitron **space equivalent diodes** are manufactured and screened to MIL-PRF-19500 flow and guidelines starting from wafer fabrication through assembly and testing using our internal specification.

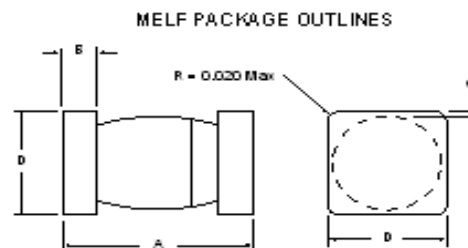
**TECHNICAL DATA  
DATA SHEET 5083, REV. A.3**

**PACKAGE DIMENSIONS (inches/mm)**



Note: Cathode side of device is indicated by a dark band marked on body.

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	$\phi B$	$\phi D$	G	L
103	.065/.150 1.65/3.81	.027/.033 .69/.84	.140/.250 3.56/6.35	1.0/1.50 25.4/38.1

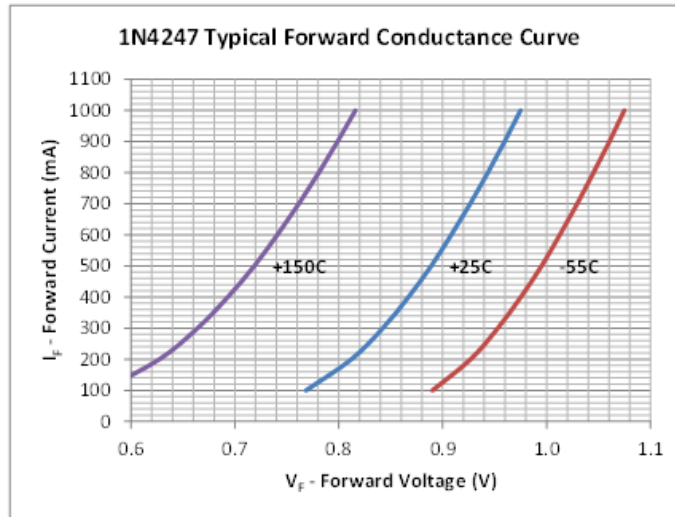


Note: Cathode side of device is indicated by a dark band marked on body.

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	A	B	C	D
MELF-1	.168/.230 4.2/5.9	0.019/.028 .48/.72	.003 Min .076 Min	.091/.128 2.311/ 3.251

**TECHNICAL DATA**  
**DATA SHEET 5083, REV. A.3**

**GRAPHS:**



**PART ORDERING INFORMATION:**

The following part numbers can be purchased in either axial or surface mount devices and screened and tested to the military screening flow. The parts are marked in accordance with the testing performed, example:

Sensitron Screening Level	*Part Number-- Leaded Package (example for 1N4245)
1N	1N4245
JAN	JAN1N4245
SJ	SJ4245
JANTX	JANTX1N4245
SX	SX4245
JANTXV	JANTXV1N4245
SV	SV4245

**DISCLAIMER:**

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