

Microsemi Corp.
The diode experts

ALSO
AVAILABLE IN
SURFACE
MOUNT

**1N5807
thru
1N5811**



SANTA ANA, CA
For more information call:
(714) 979-8220

FEATURES

- MICROMINIATURE PACKAGE
- VOIDLESS HERMETICALLY SEALED GLASS PACKAGE
- TRIPLE LAYER PASSIVATION
- METALLURGICALLY BONDED
- ULTRA FAST RECOVERY
- HIGH SURGE CAPABILITY AND EXTREMELY STABLE CHARACTERISTICS
- PIV TO 160 VOLTS
- JAN/S/TX/TXV TYPES AVAILABLE PER MIL-S-19500/477

MAXIMUM RATINGS

Operating Temperature: -55°C to +200°C.
Storage Temperature: -55°C to +200°C.

ELECTRICAL CHARACTERISTICS

TYPE	PEAK INVERSE VOLTAGE (MIN.) PIV	BREAKDOWN VOLTAGE (MIN.) V_B @ 100 μ A	AVERAGE RECTIFIED CURRENT I_O	FORWARD VOLTAGE DROP (MAX.) V_F		REVERSE CURRENT (MAX.) I_R @ PIV		SURGE CURRENT (MAX.) (NOTE 1) I_F (surge)	JUNCTION CAPACITANCE (MAX.) C_j @ -10 V	REVERSE RECOVERY TIME (MAX.) (NOTE 2)
	VOLTS	VOLTS	AMPS	VOLTS		μ A		AMPS	pF	nsec
			T_A 55°C	25°C	100°C	25°C	100°C			
1N5807	50	55	6.0	.875	.700	5				30
1N5808	75	80	@	@	@	5	150	125	50	30
1N5809	100	110	$T_L =$ 4Adc	4Adc	6Adc	5	@	Single cycle		30
1N5810	125	135	75°C	250	250	5	75°C	8.3msec	typ.	30
1N5811	150	160	($L = \frac{3}{4}$ ")	msec pulse width	msec pulse width	5				30

NOTE 1: $T_A = 55^\circ\text{C}$ @ rated I_O and V_{RM} . 10-8.3 msec surges

NOTE 2: $I_F = 1.0A$. $I_R = 1.0A$, recover to .1A

ULTRA FAST RECTIFIERS

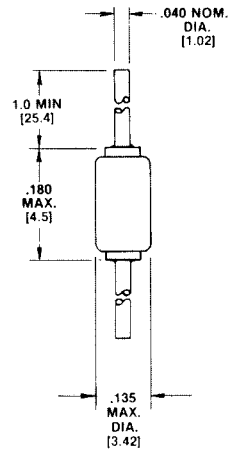


FIGURE 1
PACKAGE E

MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed hard glass.

LEAD MATERIAL: Silver clad copper.

MARKING: Body painted, alpha numeric.

POLARITY: Cathode band.

1N5807 thru 1N5811

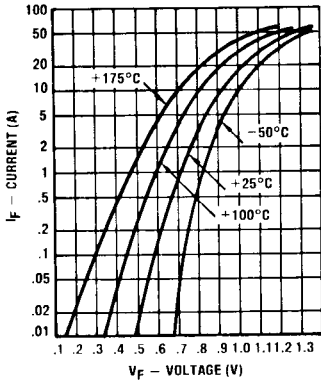


FIGURE 2
TYPICAL FORWARD CURRENT
vs. FORWARD VOLTAGE

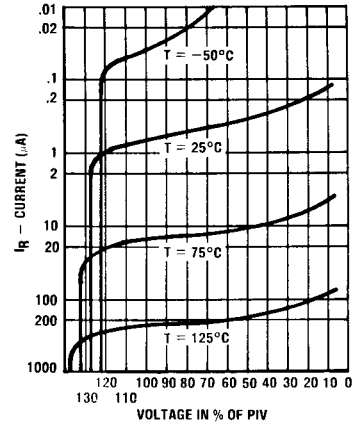


FIGURE 3
TYPICAL REVERSE CURRENT
vs. VOLTAGE

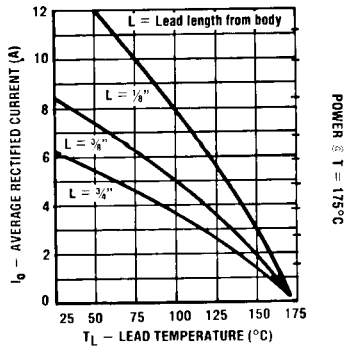


FIGURE 4
OUTPUT CURRENT vs. LEAD TEMP.

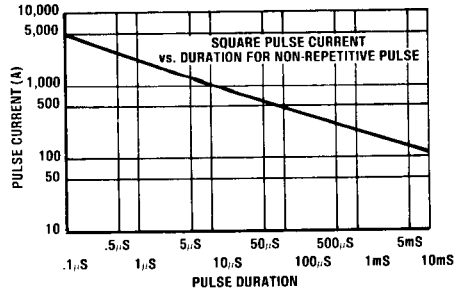
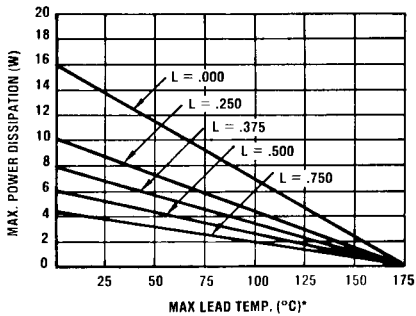


FIGURE 5
FORWARD PULSE CURRENT vs. DURATION



*Maximum lead temp. in °C (T_L) at point "L" from body.
(For max. operating junction temp. of 175°C with equal two-lead conditions.)

FIGURE 6
MAXIMUM LEAD TEMP. vs P_d

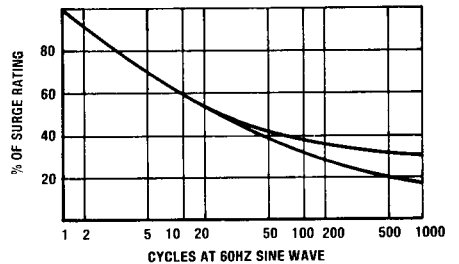


FIGURE 7
MULTIPLE SURGE CURRENT vs. DURATION