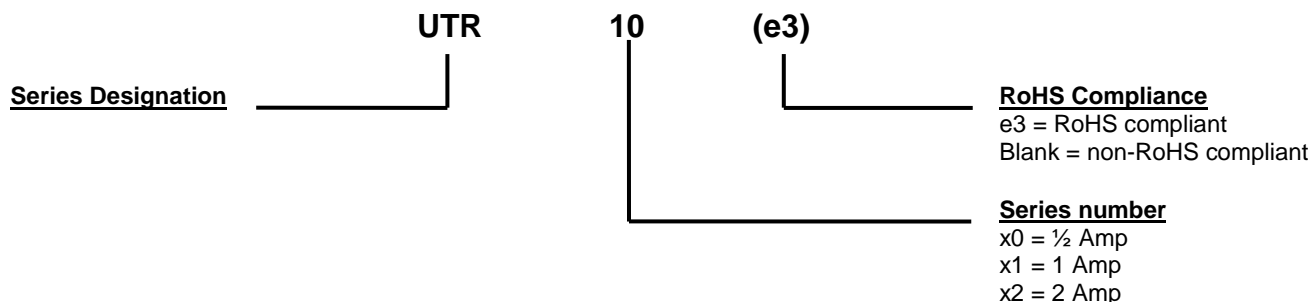


MECHANICAL and PACKAGING

- CASE: Hermetically sealed voidless hard glass with tungsten slugs.
- TERMINALS: Tin/lead or RoHS compliant matte/tin over nickel plate over copper.
- MARKING: Green band indicates “UTR”, part number printed on body.
- POLARITY: Indicated by green band.
- TAPE & REEL option: Standard per EIA-296. Consult factory for quantities.
- WEIGHT: Approximately 0.26 grams.
- See [Package Dimensions](#) on last page.

PART NOMENCLATURE

SYMBOLS & DEFINITIONS

Symbol	Definition
V_{RWM}	Working Peak Reverse Voltage: The maximum peak voltage that can be applied over the operating temperature range.
I_O	Average Rectified Output Current: Output current averaged over a full cycle with a 50 Hz or 60 Hz sine-wave input and a 180 degree conduction angle.
V_F	Maximum Forward Voltage: The maximum forward voltage the device will exhibit at a specified current.
I_R	Maximum Leakage Current: The maximum leakage current that will flow at the specified voltage and temperature.
C_J	Junction Capacitance: The junction capacitance in pF at a specified frequency (typically 1 MHz) and specified voltage.
t_{rr}	Reverse Recovery Time: The time interval between the instant the current passes through zero when changing from the forward direction to the reverse direction and a specified recovery decay point after a peak reverse current occurs.

ELECTRICAL CHARACTERISTICS @ 25 °C unless otherwise noted

	WORKING PEAK REVERSE VOLTAGE V_{RWM}	MAXIMUM FORWARD VOLTAGE DROP V_F	MAXIMUM LEAKAGE CURRENT @ V_{RWM}		REVERSE RECOVERY TIME (MAX) t_{rr} (Note 1)	MAXIMUM JUNCTION CAPACITANCE C_J @ 25°C	
TYPE	Volts	Volts	μA		ns	pF	
			25 °C	100 °C		0 V	-10 V
UTR02	50	1.1 V @ 1000 mA	3	100	250	150	60
UTR12	100				250	100	40
UTR22	200				250	80	32
UTR32	300				300	70	28
UTR42	400				350	60	24
UTR52	500				400	50	20
UTR62	600				400	40	16
UTR01	50	1.1 V @ 500 mA	3	100	250	150	60
UTR11	100				250	100	40
UTR21	200				250	80	32
UTR31	300				300	70	28
UTR41	400				350	60	24
UTR51	500				400	50	20
UTR61	600				400	40	16
UTR10	100	1.1 V @ 200 mA	3	100	250	100	40
UTR20	200				250	80	32
UTR30	300				300	70	28
UTR40	400				350	60	24
UTR50	500				400	50	20
UTR60	600				400	40	16

NOTES: 1. Recovery time is measured from 10.0 mA to 10.0 mA recovery to 5.0 mA.

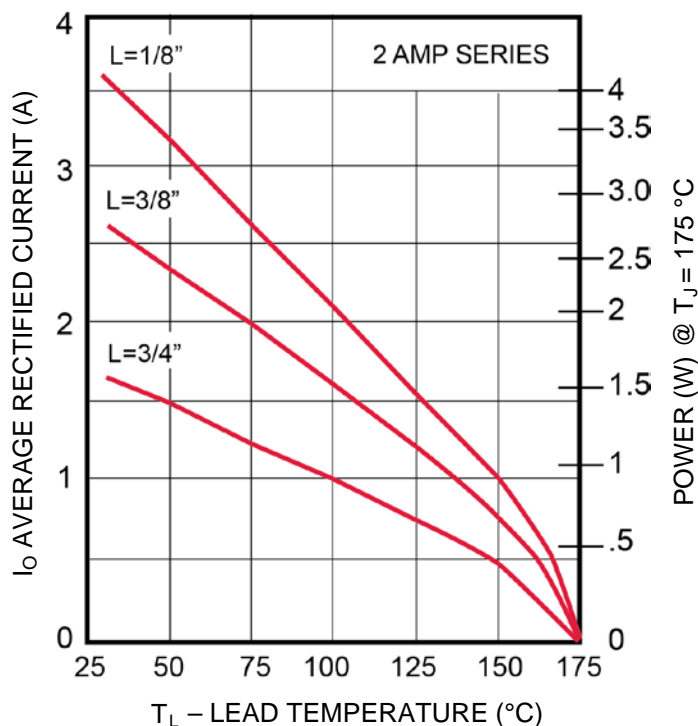
GRAPHS


FIGURE 1
Maximum Current vs Lead Temperature

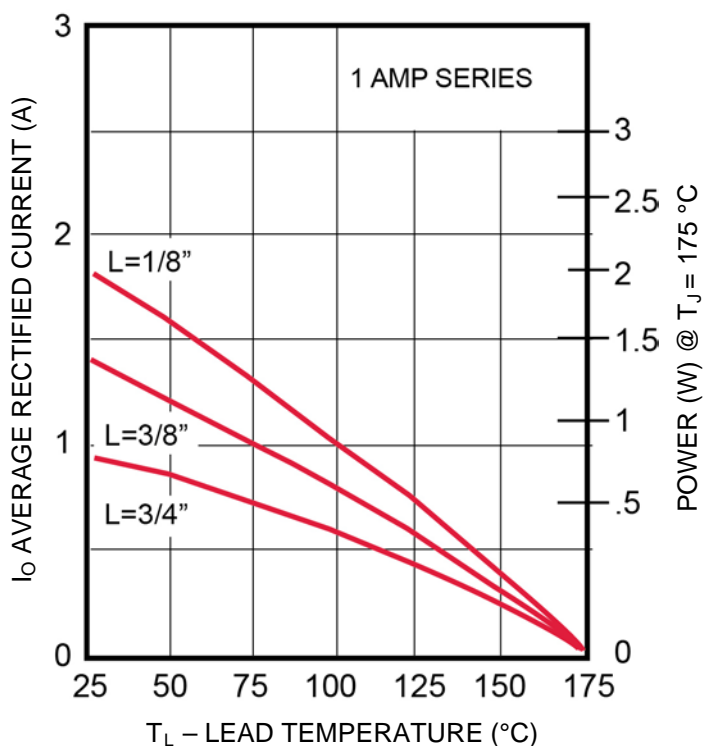
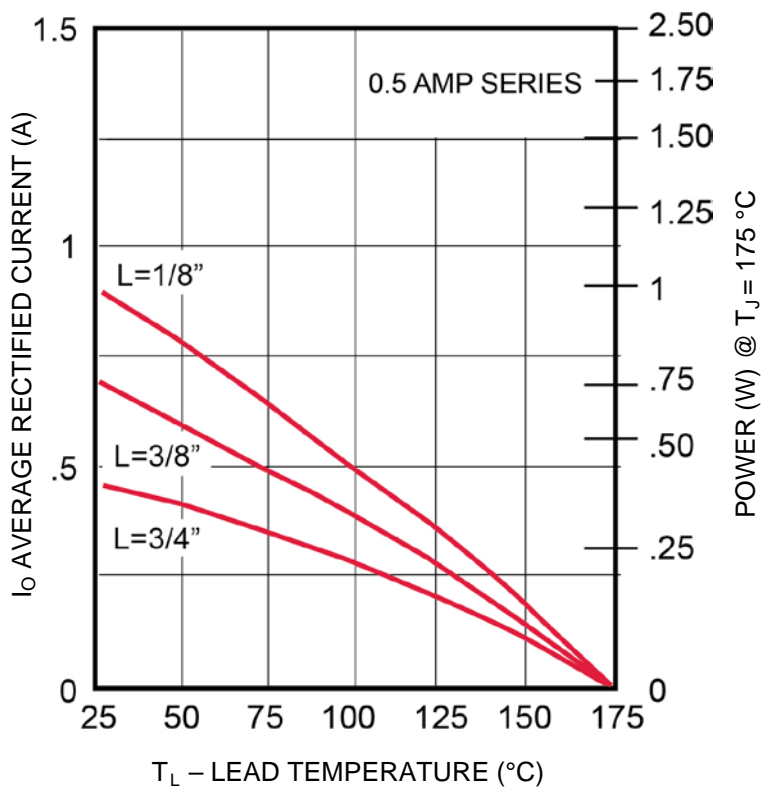
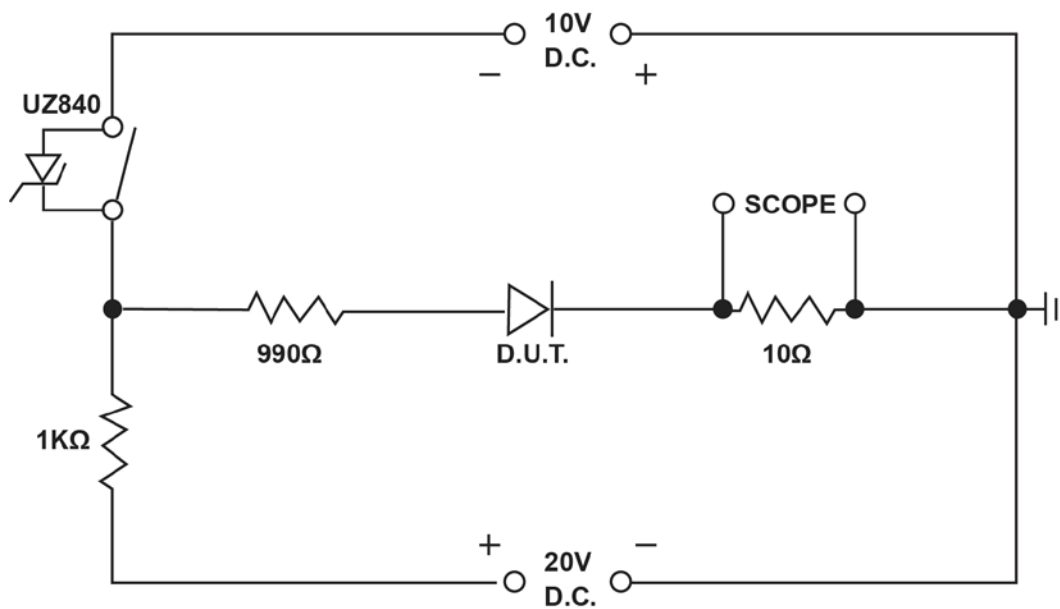


FIGURE 2
Maximum Current vs Lead Temperature

GRAPHS

FIGURE 3

Maximum Current vs Lead Temperature


FIGURE 4

Reverse-Recovery Circuit

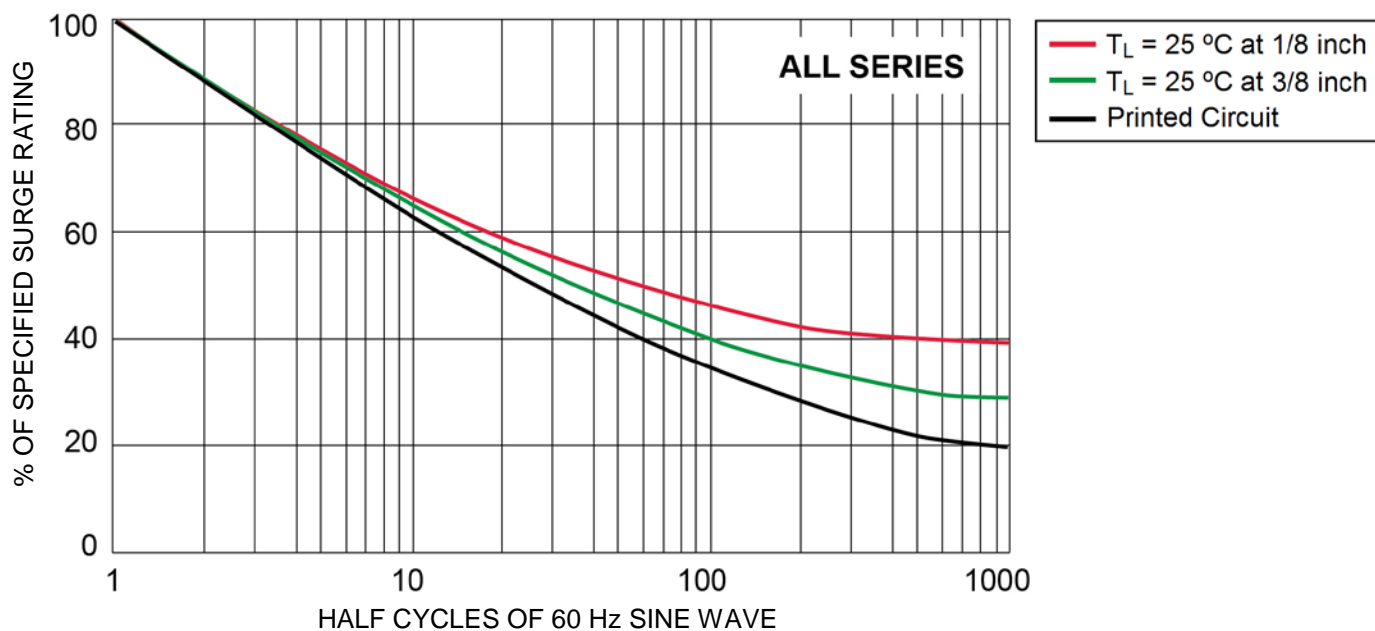
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FIGURE 5
Allowable Forward Surge vs Number of Cycles

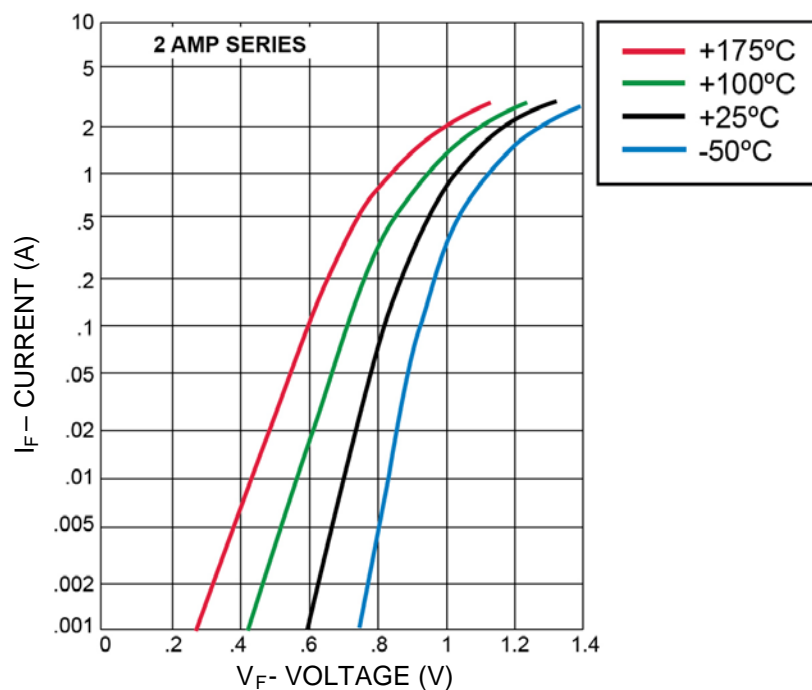


FIGURE 6
Typical Forward Current vs Forward Voltage

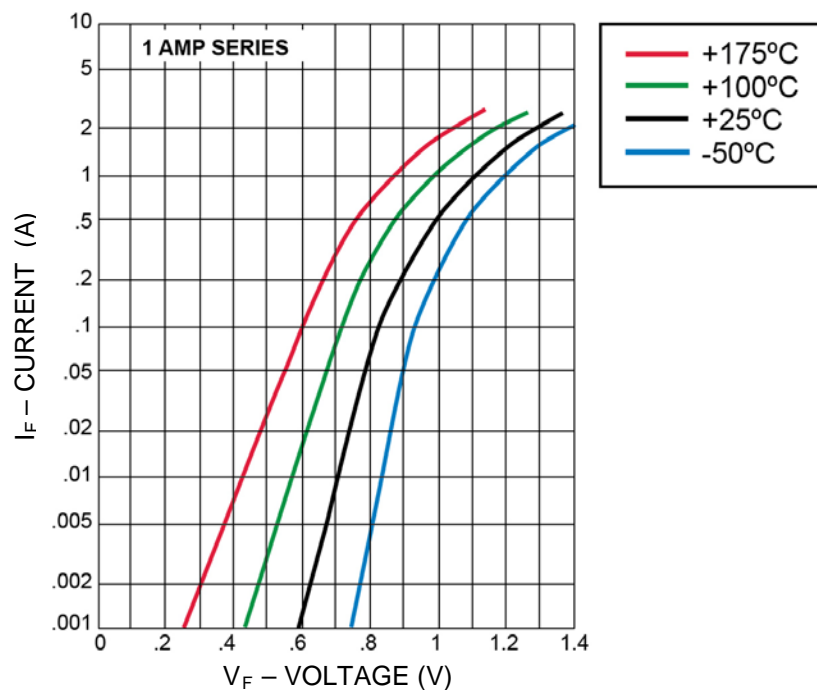
GRAPHS


FIGURE 7
Typical Forward Current vs Forward Voltage

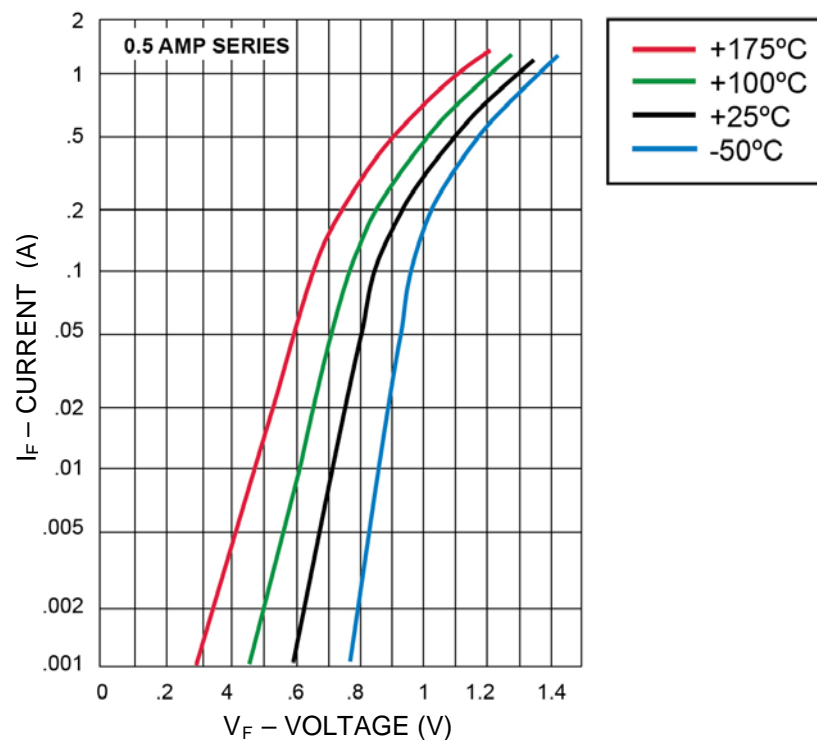
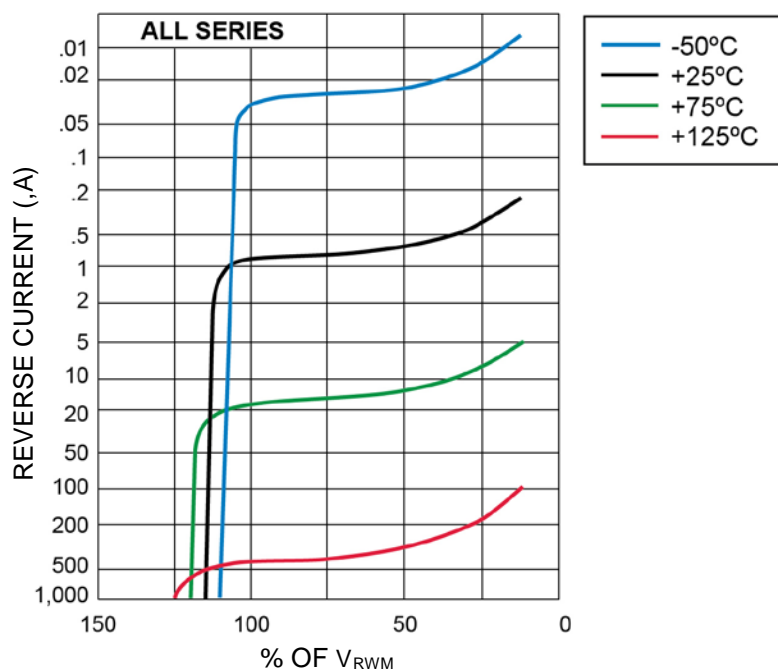
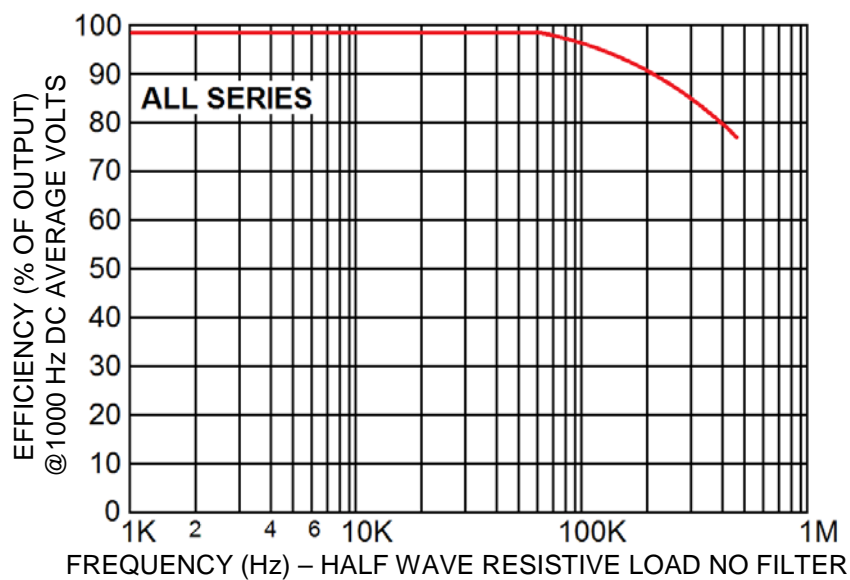


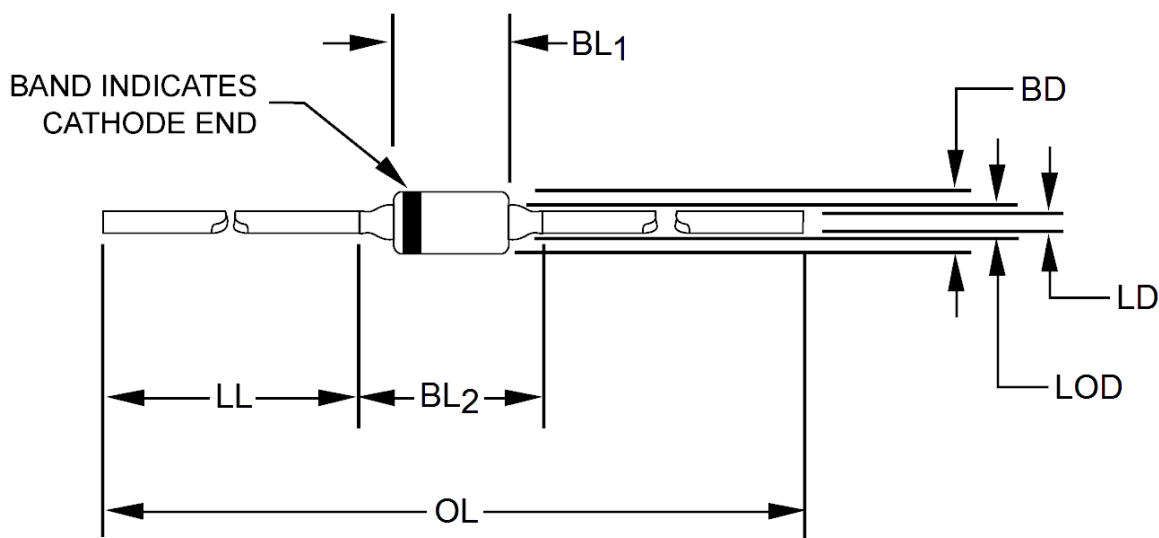
FIGURE 8
Typical Forward Current vs Forward Voltage

GRAPHS

FIGURE 9

Typical Reverse Current vs Working Peak Reverse Voltage


FIGURE 10

Efficiency vs Frequency at Rated Current (Sine Wave)

PACKAGE DIMENSIONS

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Dimension BL₂ shall include the entire body including slugs and sections of the lead over which the diameter is uncontrolled. This uncontrolled area is defined as the zone between the edge of the diode body and extending .050 inch (1.27 mm) onto the leads.
4. Dimension BD shall be measured at the largest diameter.
5. In accordance with ASME Y14.5M, diameters are equivalent to Φ x symbology.

Ltr	DIMENSIONS				Notes
	INCH		MILLIMETERS		
	Min	Max	Min	Max	
BD	0.065	0.085	1.65	2.16	4
BL ₁	0.155 TYP		3.9 TYP		
BL ₂	0.125	0.250	3.18	6.35	3
LD	0.027	0.032	0.69	0.81	3
LL	0.700	1.30	17.78	33.02	
LOD	0.055 TYP		1.4 TYP		
OL	1.625	--	41.3	--	