

FAST RECOVERY RECTIFIERS

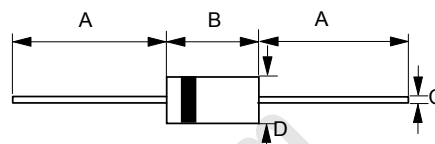
REVERSE VOLTAGE - **50 to 1000** Volts
 FORWARD CURRENT - **1.5** Amperes

FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

DO-15


DO-15		
Dim.	Min.	Max.
A	25.4	-
B	5.80	7.60
C	0.71 $\varnothing$	0.86 $\varnothing$
D	2.60 $\varnothing$	3.60 $\varnothing$
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	PR1501	PR1502	PR1503	PR1504	PR1505	PR1506	PR1507	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _A =50°C	I _(AV)	1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (MEDEC Method)	I _{FSM}	50							A
Maximum forward Voltage at 1.5A DC	V _F	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	I _R	5.0 100							µA µA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _J	30				20			pF
Typical Thermal Resistance (Note 3)	R _{θJA}	25							°C/W
Operating Temperature Range	T _J	-55 to +125							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES : 1.Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance Junction to Ambient.

REV. 3, Oct-2010, KDBD01

FIG.1 - FORWARD CURRENT DERATING CURVE

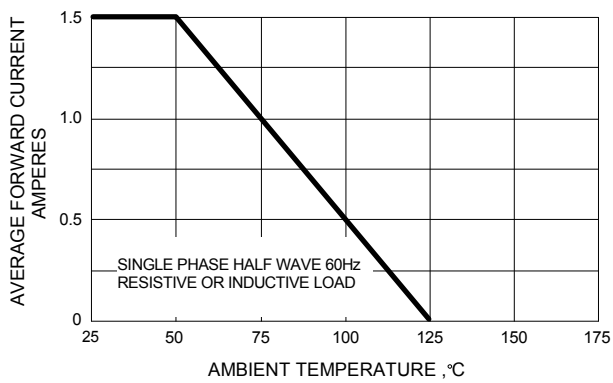


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

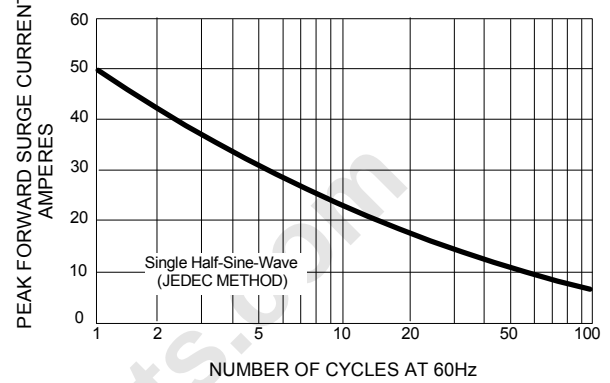


FIG.3 - TYPICAL JUNCTION CAPACITANCE

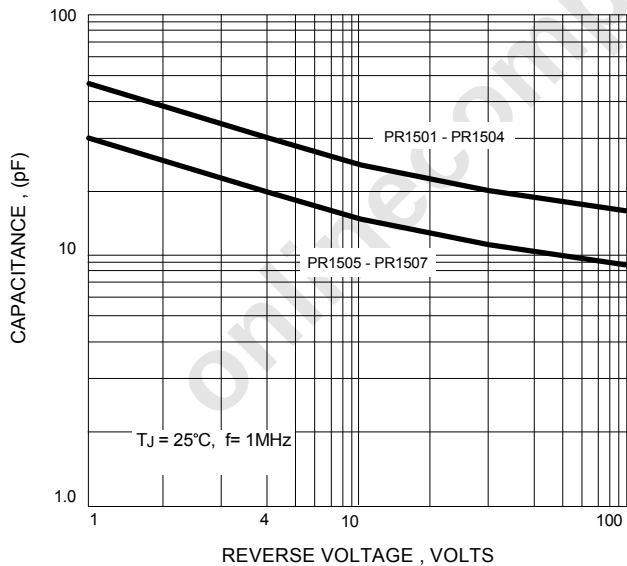
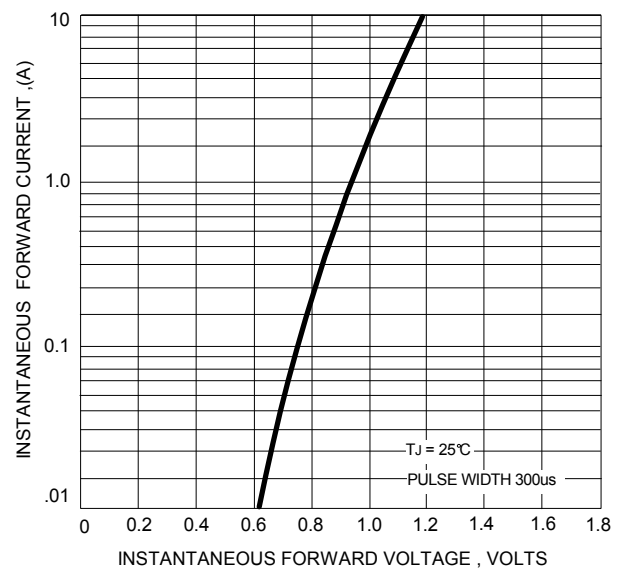


FIG.4 - TYPICAL FORWARD CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.