LITE-ON SEMICONDUCTOR

PR1501S thru PR1507S

FAST RECOVERY RECTIFIERS

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

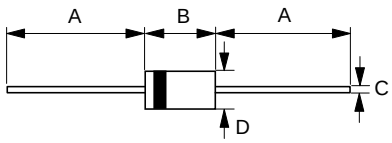
FEATURES

- 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-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

DO-41



	DO-41	
Dim.	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.71 ∅	0.86 ∅
D	2.00 ∅	2.70 ∅
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	PR 1501S	PR 1502S	PR 1503S	PR 1504S	PR 1505S	PR 1506S	PR 1507S	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℃	$I_{(AV)}$	1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	50							A
Maximum forward Voltage at 1.5A DC	V_F	1.2							V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	5 100							uA uA
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)	$R_{\theta JA}$	50							˚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=0.5A,I_R=1A,I_{RR}=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal Resistance Junction to Ambient.

REV. 2, 01-Dec-2000, KDBC03

FIG.1 - FORWARD CURRENT DERATING CURVE

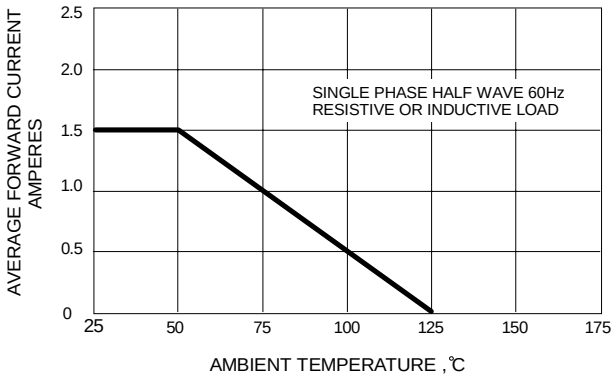


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

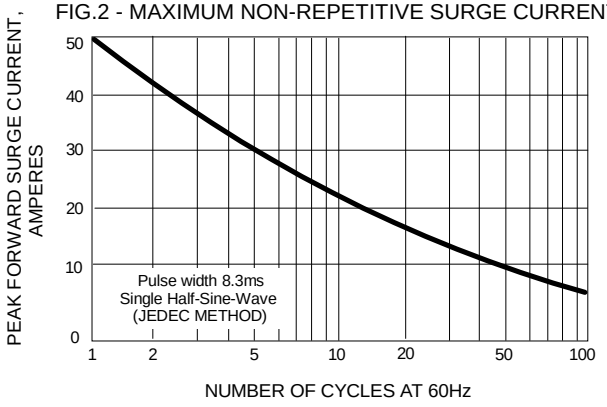


FIG.3 - TYPICAL JUNCTION CAPACITANCE

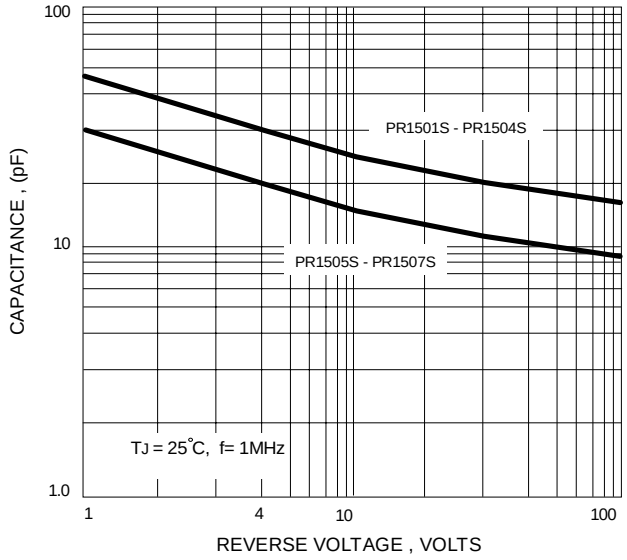


FIG.4 - TYPICAL FORWARD CHARACTERISTICS