Compact Technology

PR2001 thru PR2007

FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 2.0** Amperes

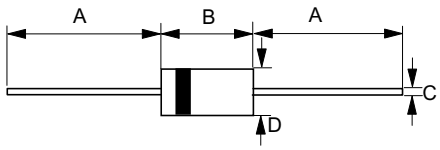
FEATURES

- 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	0.70 ∅	0.90 ∅
D	2.60 ∅	3.60 ∅
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	PR2001	PR2002	PR2003	PR2004	PR2005	PR2006	PR2007	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	$I_{(AV)}$	2.0							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 2.0A DC	V_F	1.3							V
Maximum DC Reverse Current @T_J=25˚C at Rated DC Blocking Voltage @T_J=100˚C	I_R	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_J	45				25			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50							˚C/W
Operating Temperature Range	T_J	-55 to +150							˚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.

RATINGS AND CHARACTERISTIC CURVES

FIG . 1- MAXIMUM FORWARD CURRENT DERATING CURVE

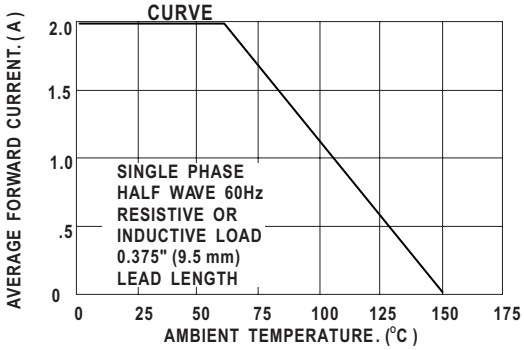


FIG . 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

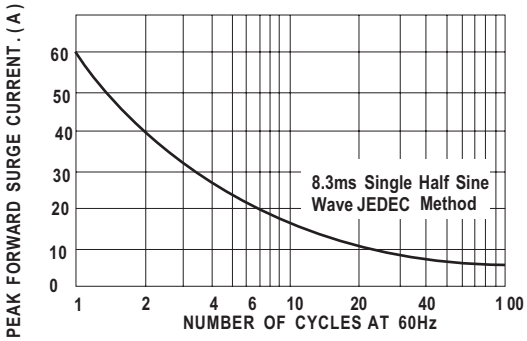


FIG 3 .- TYPICAL FORWARD CHARACTERISTICS

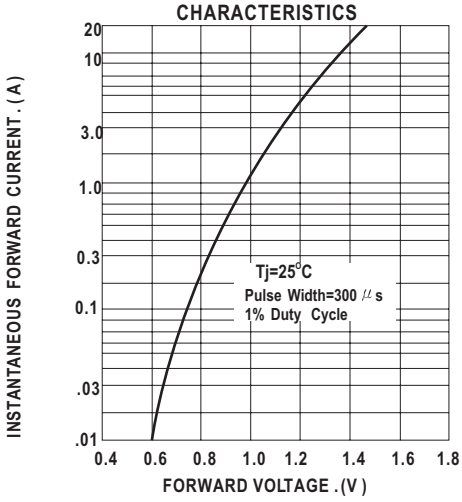


FIG . 4- TYPICAL HUNCTION CAPACITANCE

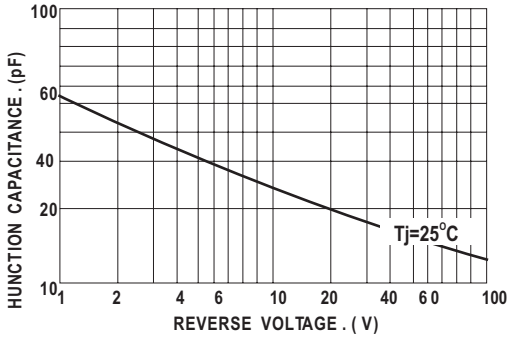
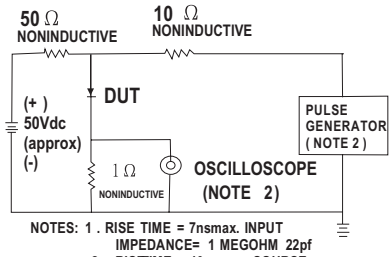


FIG . 5 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1 . RISE TIME = 7nsmax. INPUT IMPEDANCE= 1 MEGOHM 22pf
2 . RISETIME = 10ns max.SOURSE IMPEDANCE = 50ohmsf

