

FAST RECOVERY RECTIFIERS

**REVERSE VOLTAGE – 50 to 1000 Volts
FORWARD CURRENT – 1.5 Ampere**

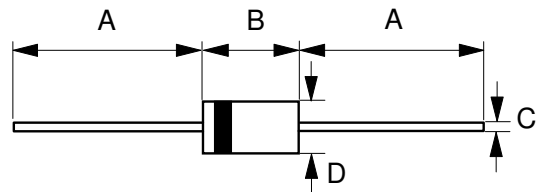
FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- 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: 0.34 grams (Approximate)
- Mounting Position: Any
- Marking: PR150X

DO - 41



DO - 41		
DIM	MIN	MAX
A	25.4	--
B	4.10	5.20
C	0.71 Ø	0.86 Ø
D	2.00 Ø	2.70 Ø
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	PR1501S	PR1502S	PR1503S	PR1504S	PR1505S	PR1506S	PR1507S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average rectified output current per device @ $T_A=50^\circ C$	$I_{(AV)}$	1.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							A
Operating temperature range	T_J	-55 to +125							°C
Storage temperature range	T_{STG}	-55 to +150							°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX.						UNIT
Forward voltage	$I_F = 1.5A$ $T_J = 25^\circ C$	V_F	1.2						V
Leakage current	V_R at rated $T_J = 25^\circ C$ $T_J = 100^\circ C$	I_R	5 100						uA
Typical junction capacitance (Note 1)		C_J	30			20			pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.			UNIT
Thermal resistance junction to ambient	R_{thJA}	50			°C/W
Thermal resistance junction to case	R_{thJC}	15			

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX.			UNIT
Reverse recovery time	$I_F = 0.5A, I_{RR} = 0.25A, I_R = 1.0A$	T_{RR}	150	250	500	ns

Note :

(1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC

REV.7, APR-2018, KDBC03

RATING AND CHARACTERISTIC CURVES
PR1501S thru PR1507S



FIG.1- FORWARD CURRENT DERATING CURVE

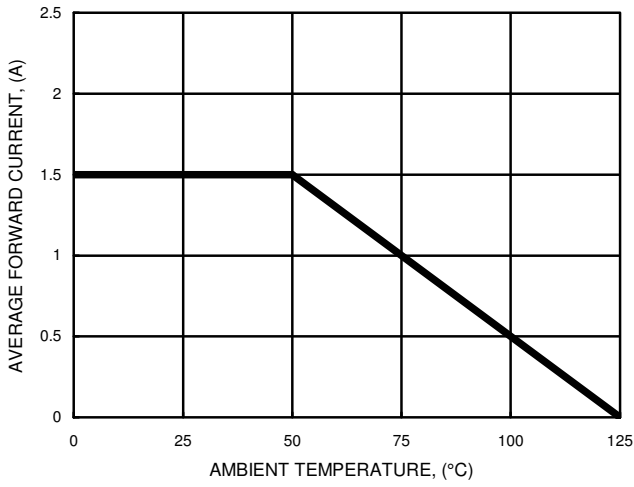


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

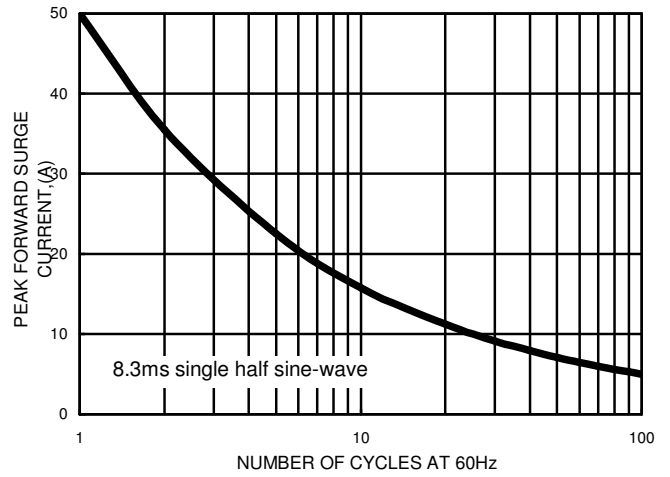


FIG.3- TYPICAL FORWOD CHARACTERISTICS

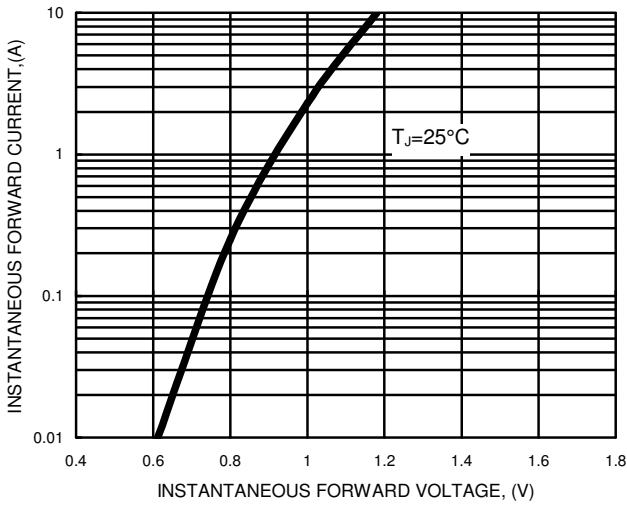


FIG.4- TYPICAL REVERSE CHARACTERISTICS

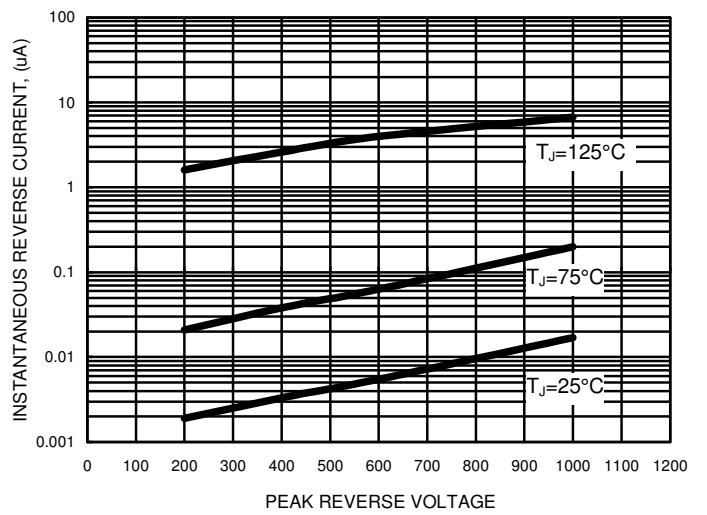
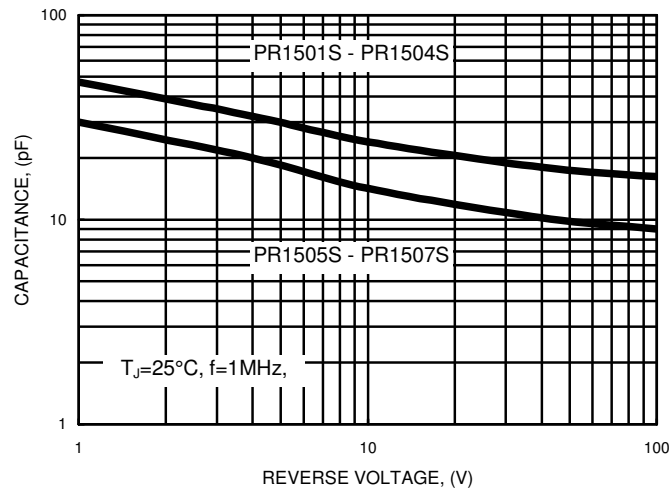


FIG.5- TYPICAL JUNCTION CAPACITANCE



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