## PS100RS THRU PS1010RS

# FAST SWITCHING PLASTIC DIODES VOLTAGE - 50 to 1000 Volts CURRENT - 1.0 Ampere

## **FEATURES**

- High current capability
- Plastic package has Underwriters Laboratory
   Flammability Classification 94V-O Utilizing
   Flame Retardant Epoxy Molding Compound
- 1.0 ampere operation at T<sub>A</sub>=55 **¢J** with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage

## **MECHANICAL DATA**

Case: Molded plastic, A-405

Terminals: Plated axial leads, solderable per MIL-STD-202,

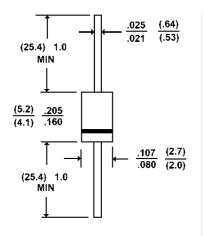
Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.008 ounce, 0.22 gram

## <u>A-405</u>



Dimensions in inches and (millimeters)

#### 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%.

	PS100RS	PS101RS	PS102RS	PS104RS	PS106RS	PS108RS	PS1010RS	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified	1.0							Α
Current .375"(9.5mm) lead length at T <sub>A</sub> =55 <b>¢J</b>								
Peak Forward Surge Current 8.3ms single half sine	30							Α
wave superimposed on rated load(JECEC method)								
Maximum Forward Voltage at 1.0A DC	1.3							V
Maximum Reverse Current T <sub>J</sub> =25 <b>¢J</b>	5.0							£g A
at Rated DC Blocking Voltage T <sub>J</sub> =100 <b>¢J</b>	500							£g A
Typical Junction capacitance (Note 1) CJ	12							₽F
Typical Thermal Resistance (Note 3) R <b>£K</b> JA	67							¢J/W
Maximum Reverse Recovery Time(Note 2)	150	150	150	150	250	500	500	ns
Operating and Storage Temperature Range $T_J, T_{\text{STG}}$	-55 to +150							¢J

## NOTES:

- 1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- 2. Reverse Recovery Test Conditions: I<sub>F</sub>=.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=.25A
- 3. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted



## RATING AND CHARACTERISTIC CURVES PS100RS THRU PS1010RS

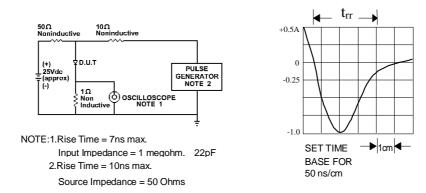


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

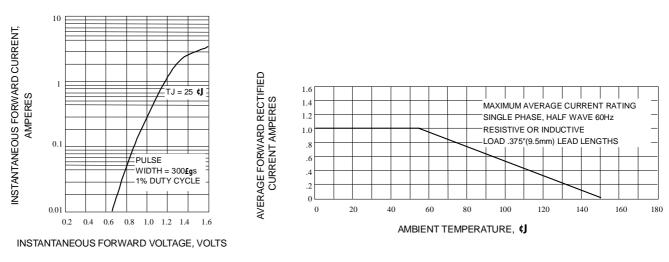


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

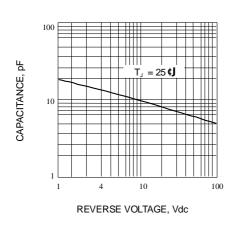


Fig. 4-TYPICAL JUNCTION CAPACITANCE

Fig. 3-FORWARD CURRENT DERATING CURVE

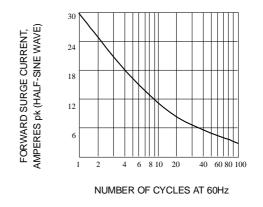


Fig. 5-PEAK FORWARD SURGE CURRENT

