

# General Purpose Plastic Rectifier

# ERA15-01 THRU ERA15-10 Vishaymas Semiconductors

## FEATURES

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

## MECHANICAL DATA

**Case:** JEDEC DO--41, molded plastic

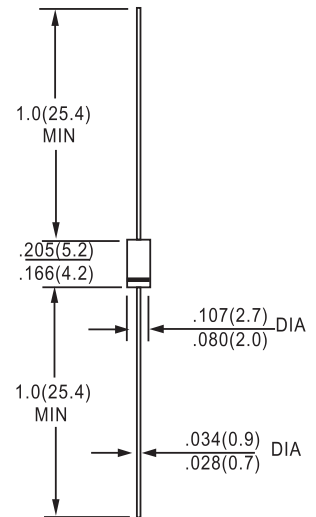
**Terminals:** Axial lead, solderable per MIL-STD-202, Method 208

**Polarity:** Color band denotes cathode

**Weight:** 0.012 ounces, 0.34 grams

**Mounting position:** Any

## DO-41



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

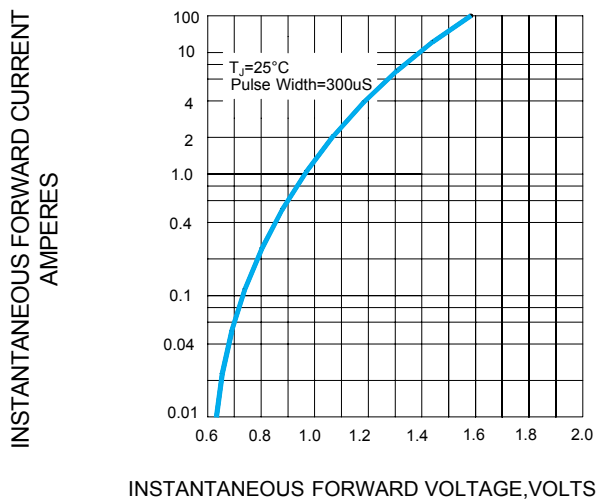
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		ERA15 -01	ERA15 -02	ERA15 -04	ERA15 -06	ERA15 -08	ERA15 -10	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	40.0						A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.0						V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0 50.0						
Typical junction capacitance (Note1)	$C_J$	15						pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50						$^\circ\text{C}/\text{W}^\circ\text{A}$
Operating junction temperature range	$T_J$	- 55----- + 150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55----- + 150						$^\circ\text{C}$

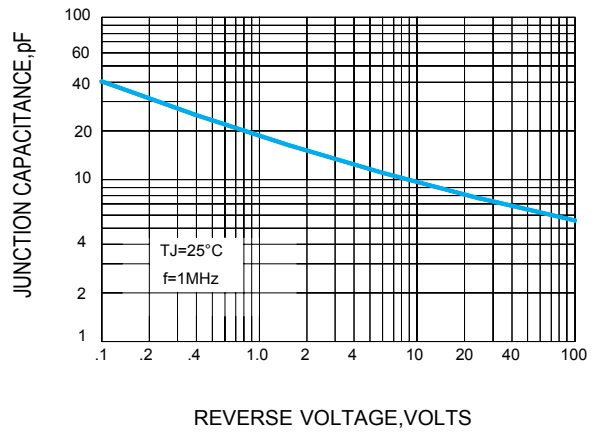
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

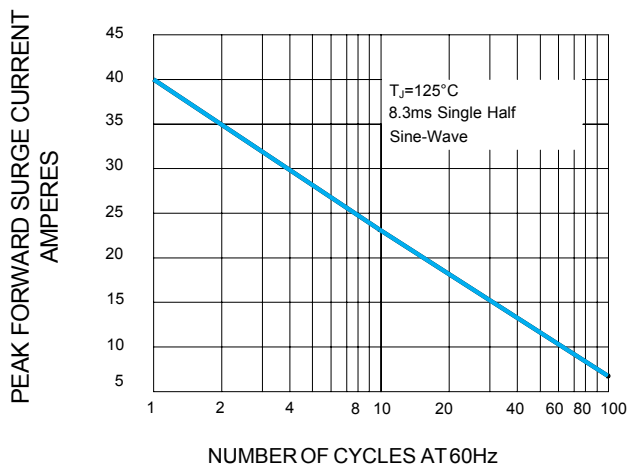
**FIG.1 -- TYPICAL FORWARD CHARACTERISTIC**



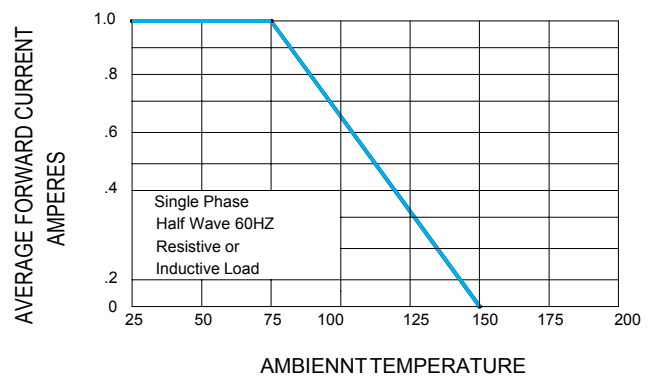
**FIG.2 -- TYPICAL JUNCTION CAPACITANCE**



**FIG.3 -- PEAK FORWARD SURGE CURRENT**



**FIG.4 -- FORWARD DERATING CURVE**



**FIG 5 --TYPICAL FORWARD CHARACTERISTIC**

