

## TECHNICAL SPECIFICATION

### FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High surge current capability
- Low leakage
- Ideal for surface mounted automotive applications
- High temperature soldering capability : 230°C/5 seconds

### MECHANICAL DATA

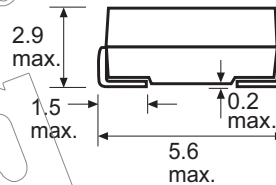
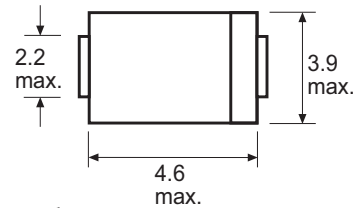
Case : JEDEC DO-214AA, moulded plastic.  
 Terminals : Solder plated, solderable per MIL-STD 750, method 2026  
 Polarity : Colour band denotes cathode end.  
 Weight : 0.14 grams (0.005 ounce)  
 Standard : 12mm tape  
 Packaging

**VOLTAGE**  
50 to 1000 Volts

**CURRENT**  
1.0 Amp

**DIMENSIONS** - millimeters

DO-214AA



### 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 current by 20%.

	Symbols	IS1A	IS1B	IS1D	IS1G	IS1J	IS1K	IS1M	Units
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 at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ\text{C}$							$\mu\text{A}$
		$T_A = 100^\circ\text{C}$							$\mu\text{A}$
Typical Junction Capacitance (see Note 1)	$C_J$	15							pF
Typical Thermal Resistance (see Note 2)	$R_{THja}$	30							$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	- 40 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 40 to + 150							$^\circ\text{C}$

- Notes :
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
  2. P.C.B. mounted on 5.0mm<sup>2</sup> copper land areas

# IS1A THRU IS1M

## RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

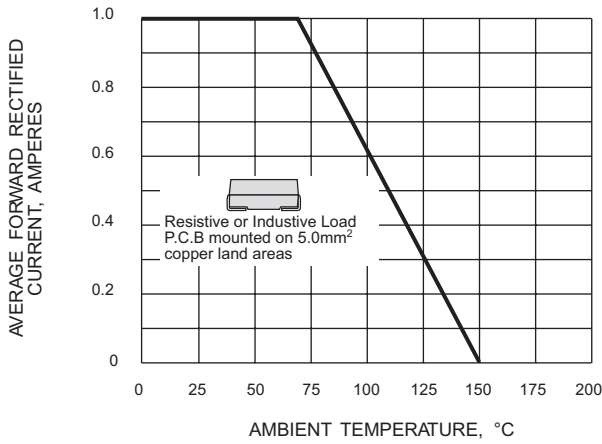


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

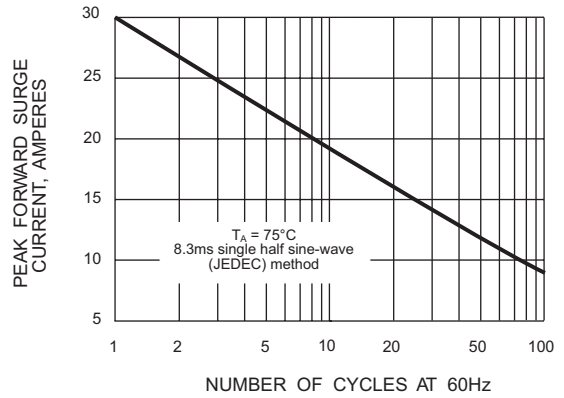


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

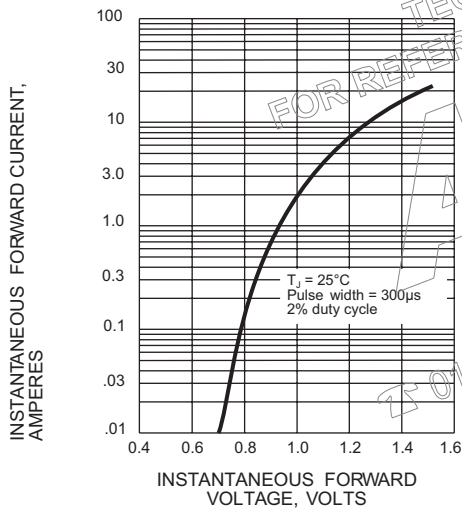


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

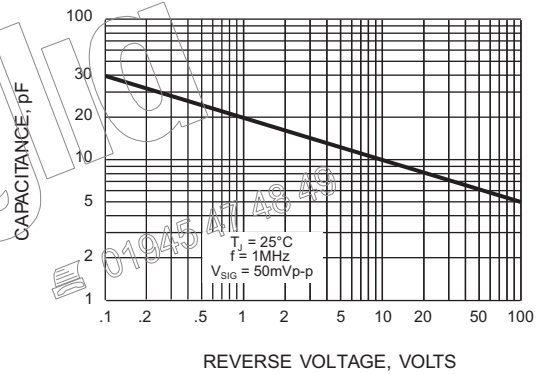
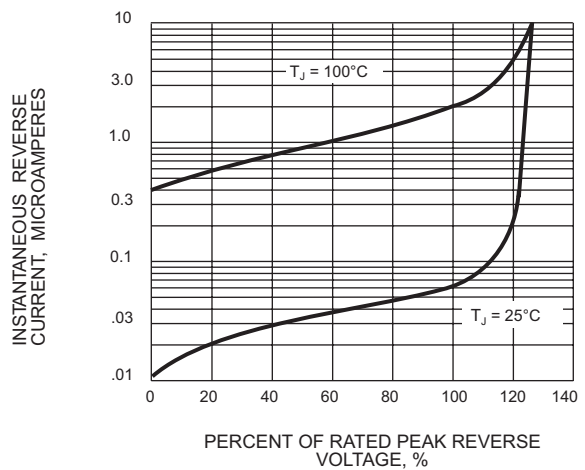


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



### TAPE & REEL SPECIFICATION

