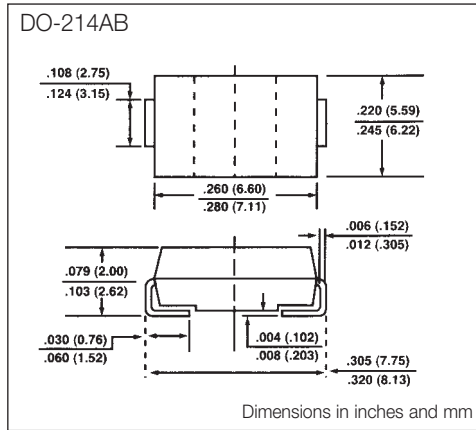


**S3A - S3M**



**Surface mount rectifier**

Voltage: 50 to 1.000 Volts

Current: 3.0 Amperes

**Features**

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass Passivated Chip Junction

**Mechanical data**

- Case: JEDEC DO-214AB model plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2006
- Polarity: Indicated by cathode band
- Standard packaging: 16 mm tape (EIA-481)
- Weight: 0.007 ounces, 0.21 gram

**Maximum Ratings and Electrical Characteristics**

- Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.

	Symbols	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1.000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1.000	Volts
Maximum Average Forward Rectified Current, at $T_L = 75^\circ C$	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0							Amps
Maximum instantaneous Forward Voltage at 3.0A	$V_F$	1.20							Volts
Maximum DC Reverse Current $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 125^\circ C$	$I_R$	5.0 250.0							$\mu A$
Typical Reverse Recovery Time (NOTE 1)	$T_{RR}$	2.5							$\mu S$
Typical Junction Capacitance (NOTE 2)	$C_J$	60.0							pf
Maximum Thermal Resistance (NOTE 3)	$R^{\theta}_{JL}$ $R^{\theta}_{JA}$	13 47							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to + 150							$^\circ C$

Notes:

1. Reverse Recovery test Conditions:  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ .
2. Measured at 1.0 MHz and Applied  $V_r = 4.0$  Volts.
3. 8.0 mm<sup>2</sup> (.013 mm thick) land areas.

Rating and Characteristics Curves S3A THRU S3M

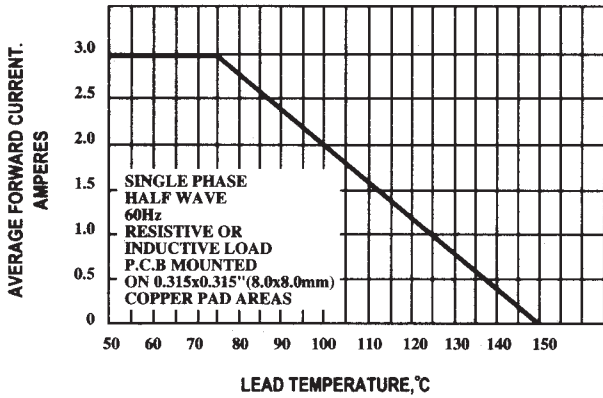


Fig. 1 - Forward current derating curve

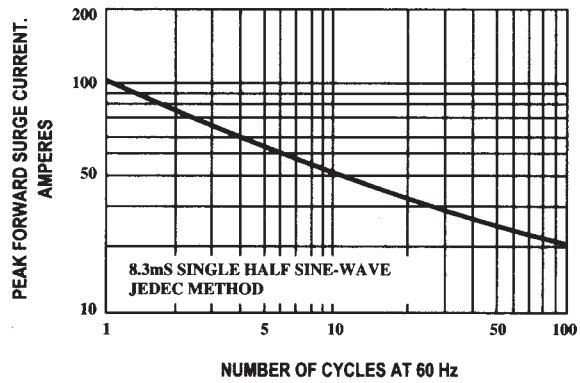


Fig. 2 - Maximum non-repetitive surge current

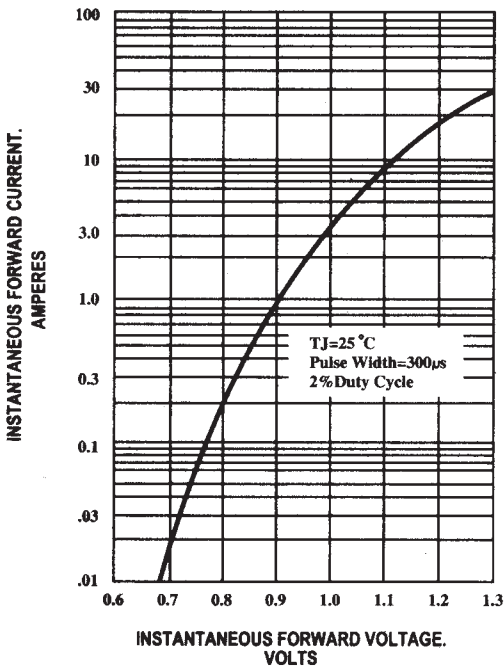


Fig. 3 - Typical instantaneous forward characteristics

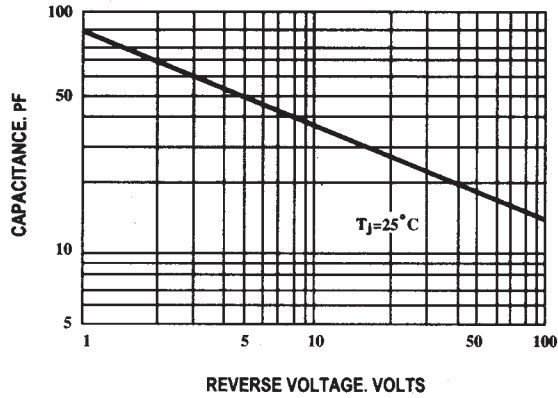


Fig. 4 - Typical junction characteristics

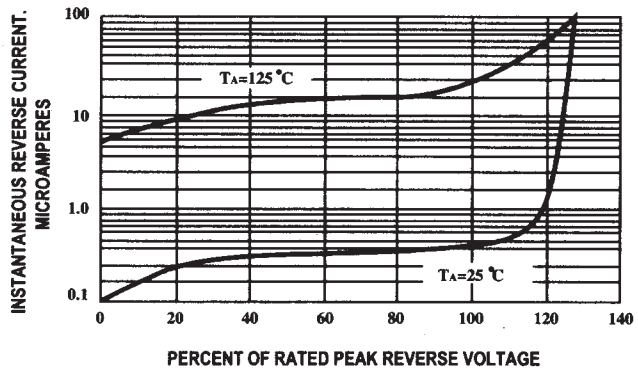


Fig. 5 - Typical reverse characteristics