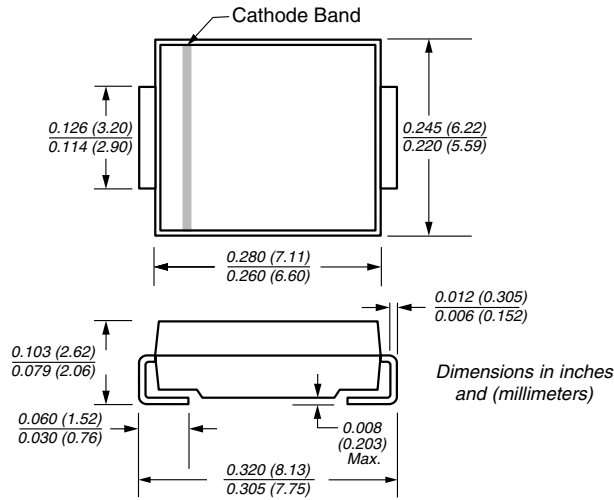
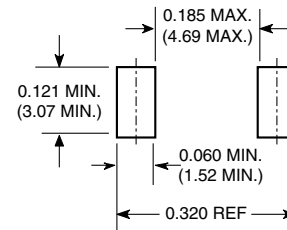



DO-214AB (SMC)

Mounting Pad Layout


Mechanical Data

Case: JEDEC DO-214AB molded plastic body over glass passivated chip

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

High temperature soldering:
260°C/10 seconds at terminals

Polarity: Color band denotes cathode end

Weight: 0.007 ounce, 0.25 gram

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mount applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Unit
Device marking code		SA	SB	SD	SG	SJ	SK	SM	
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 $T_L=103^\circ\text{C}$ ⁽¹⁾	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=75^\circ\text{C}$	I_{FSM}	100							A
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	47 13							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

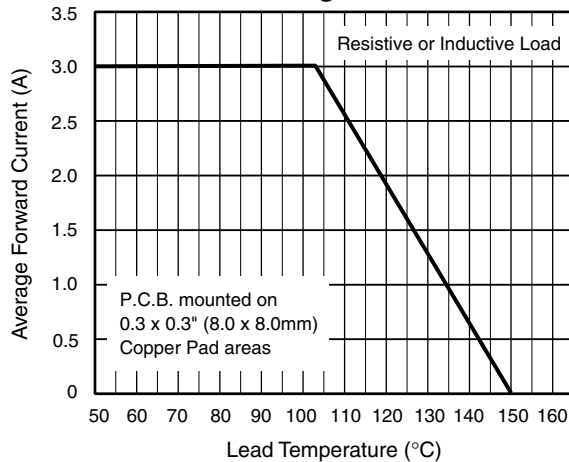
Maximum instantaneous forward voltage at 2.5A	V_F	1.15	V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	10 250	μA
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$	t_{rr}	2.5	μs
Typical junction capacitance at 4.0V, 1MHz	C_J	60	pF

Note: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

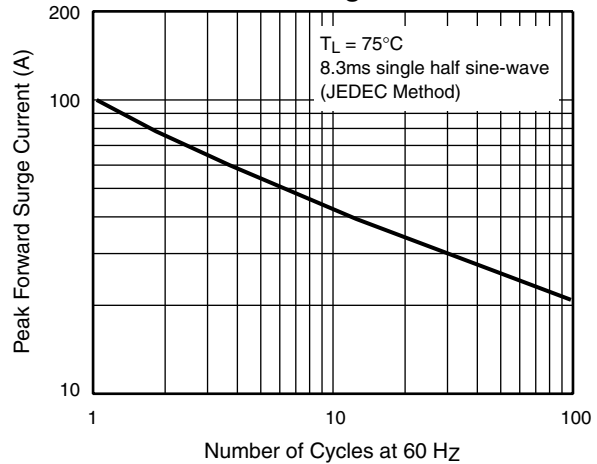
Surface Mount Glass Passivated Rectifier

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

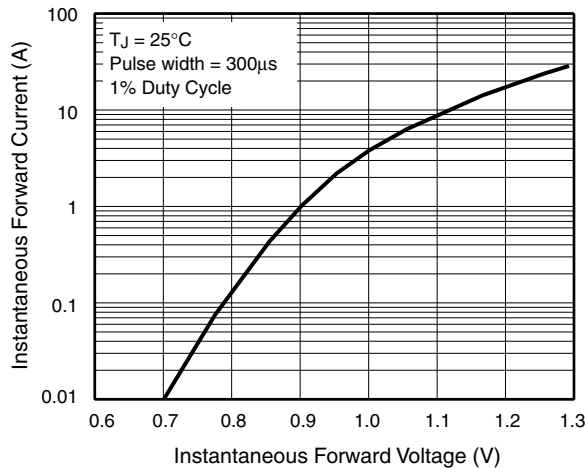
**Fig. 1 - Forward Current
Derating Curve**



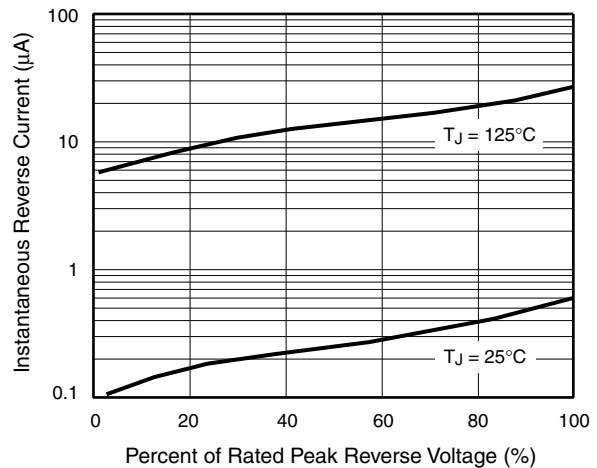
**Fig. 2 - Maximum Non-Repetitive Peak
Forward Surge Current**



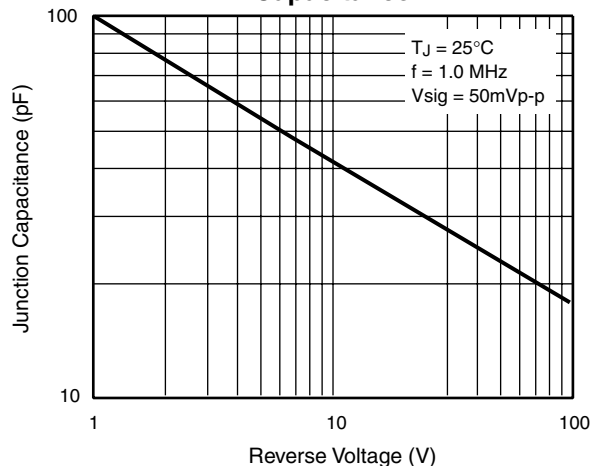
**Fig. 3 - Typical Instantaneous Forward
Characteristics**



**Fig. 4 - Typical Reverse
Characteristics**



**Fig. 5 - Typical Junction
Capacitance**



**Fig. 6 - Typical Transient Thermal
Impedance**

