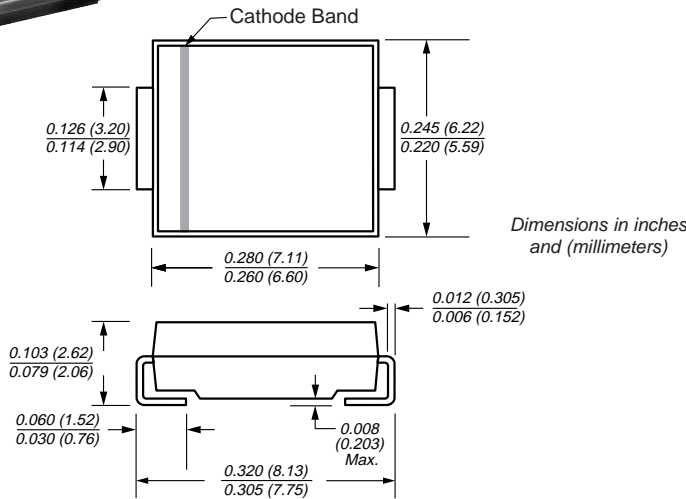




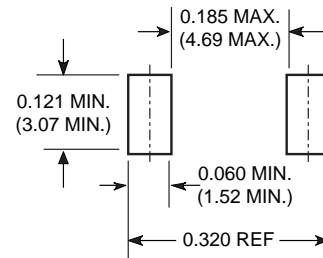
Surface Mount Fast Switching Rectifier

DO-214AB (SMC)

Reverse Voltage 50 to 800V
Forward Current 3.0A



Mounting Pad Layout



Mechanical Data

Case: JEDEC DO-214AB molded plastic over glass passivated chip
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.007 oz., 0.25 g
Packaging codes/options:
 9/3.5K per 13" Reel (16mm Tape)
 7/850 EA per 7" Reel (16mm Tape)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Fast switching for high efficiency
- Easy pick and place
- Glass passivated chip junction
- High temperature soldering: 250°C/10 seconds at terminals

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	Symbols	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	Units
Device marking code		RA	RB	RD	RG	RJ	RK	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	V
Maximum RMS voltage	VRMS	35	70	140	280	420	500	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	V
Maximum average forward rectified current at TL=75°C	IF(AV)	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=75°C	IFSM	100						A
Typical thermal resistance ⁽¹⁾	RθJA RθJL	50 15						°C/W
Operating junction and storage temperature range	TJ, TSTG	-55 to +150						°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 2.5A	VF	1.3						V
Maximum DC reverse current at rated DC blocking voltage	IR	10 250						μA
Maximum reverse recovery time IF=0.5A, IR=1.0A, Irr=0.25A	trr	150				250	500	ns
Typical junction capacitance at 4.0V, 1MHz	CJ	60						pF

Notes: (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 area

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

Fig. 1 — Forward Current Derating Curve

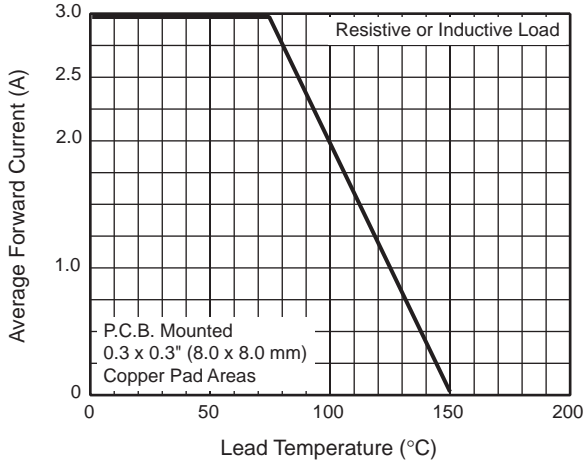


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

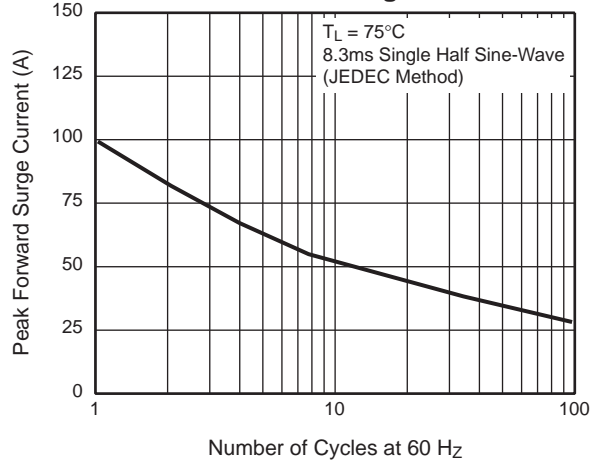


Fig. 3 — Typical Instantaneous Forward Characteristics

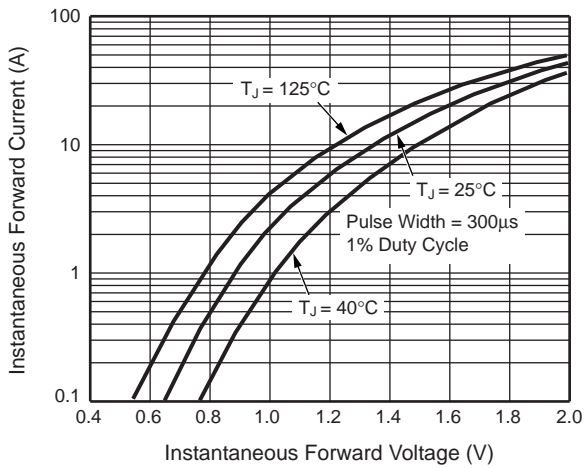


Fig. 4 — Typical Reverse Characteristics

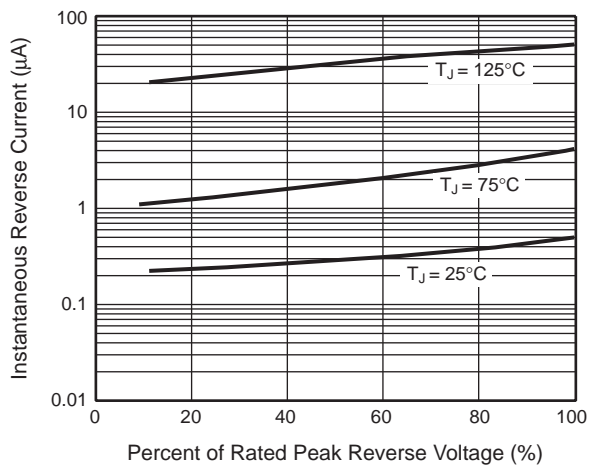


Fig. 5 — Typical Transient Thermal Impedance

