DEC

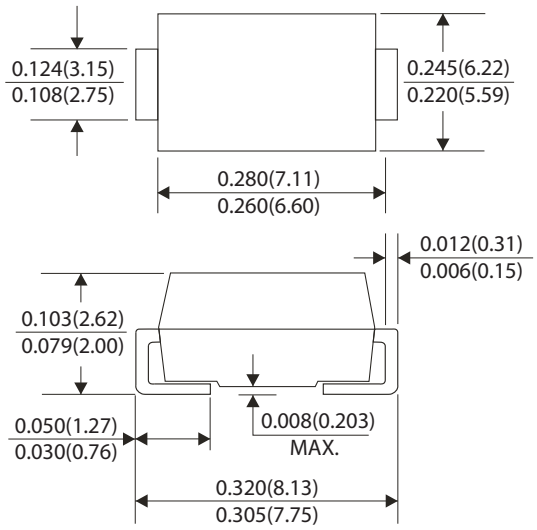
S3A THRU S3M

CURRENT 3.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- For surface mounted applications
- Glass passivated junction
- Low profile package
- Built-in strain relief, ideal for automated placement
- Plastic package has Unerwrites Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed: 250℃/10 seconds, at terminals

DO-214AB (SMC)



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC SMC(DO-214AB) molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.007 ounce, 0.25 gram

Maximum Ratings And Electrical Characteristics

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

		Symbols	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum recurrent peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	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	1000	Volts
Maximum average forward rectified current at T_L=75℃ (Note 2)		$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) T_L=75℃		I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 1.0A		V_F	1.15							Volts
Maximum reverse current at rated voltage	T_A=25℃	I_R	1.0							μA
	T_A=125℃		250							
Typical thermal resistance (Note 2)		$R\Theta_{JL}$ $R\Theta_{JA}$	13.0 47.0							℃/W
Typical reverse capacitance (Note 3)		trr	2.5							μS
Typical junction capacitance (Note 1)		C_J	60.0							pF
Operating and storage temperature range		T_J T_{STG}	-55 to +175							℃

Notes:

(1) Measured at 1MHz and applied reverse voltage of 4.0V dc.

(2) Thermal resistance from junction to ambient and from junction to lead mounted on 0.2×0.2"(0.5×0.5mm) copper opad areas.

(3) Reverse recovery test conditions:I_F=0.5A, I_R=1.0A, Irr=0.25A

RATINGS AND CHARACTERISTIC CURVES S3A THRU S3M

FIG.1-FORWARD CURRENT DERATING CURVE

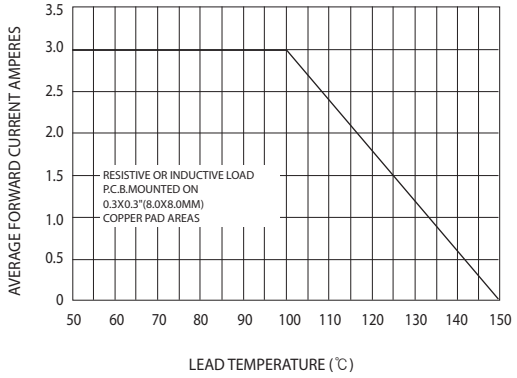


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

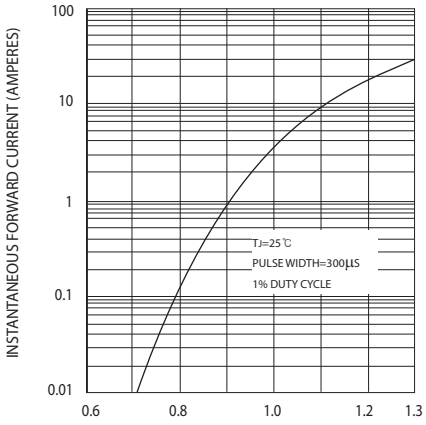


FIG.4-TYPICAL REVERSE CHARACTERISTICS

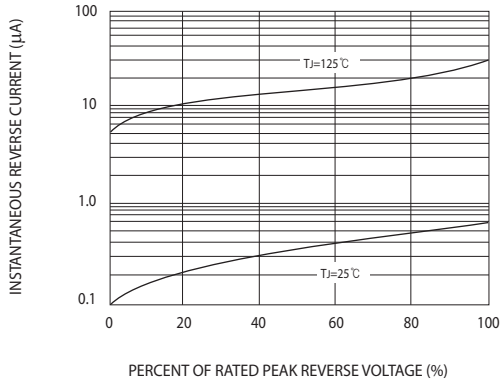


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

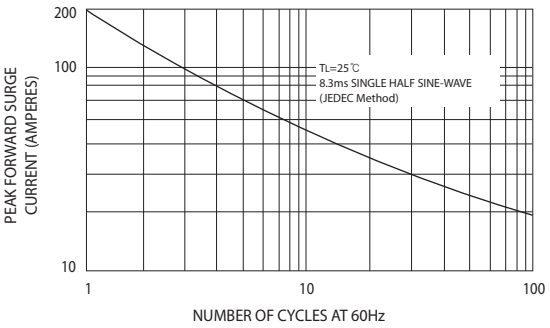


FIG.5-TYPICAL JUNCTION CAPACITANCE

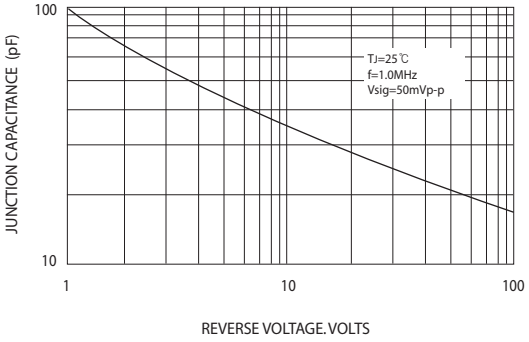


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE