

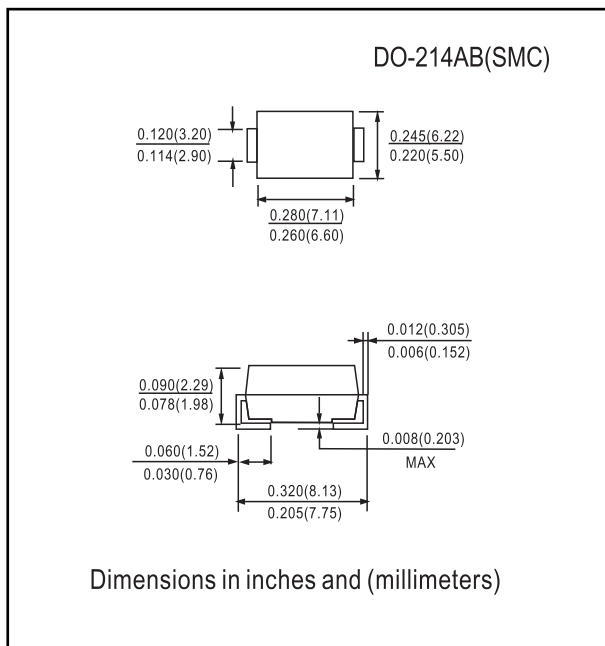


FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mount applications
- ◆ Low profile package
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Easy pick and place
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ High temperature soldering:
250°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.007 ounce 0.25 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SL42	SL43	SL44	UNITS
Device marking code		SL2	SL3	SL4	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	Volts
Maximum average forward rectified current (NOTE 2) at T _L (SEE FIG. 1)	I _(AV)		4.0 8.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}		150		Amps
Maximum instantaneous forward voltage at: (NOTE 1) I _F =4.0A, T _A =125°C I _F =4.0A, T _A =25°C I _F =8.0A, T _A =125°C I _F =8.0A, T _A =25°C	V _F		0.31 0.42 0.37 0.47	0.35 0.44 0.41 0.50	Volts
Maximum DC reverse current (NOTE 1) T _A =25°C at rated DC blocking voltage T _A =100°C	I _R		0.5 35.0		mA
Typical thermal resistance (NOTE 2)	R _{θJA} R _{θJL}		50 14		°C/W
Operating junction temperature range	T _J		-55 to +125		°C
Storage temperature range	T _{STG}		-55 to +150		°C

NOTES:

- (1) Pulse test: 300µs pulse width, 1% duty cycle,
- (2) P.C.B. mounted 0.55 x 0.55" (14 x 14mm) copper pad areas, T_L=90°C
- (3) Mounted on Al plate, T_L=60°C, R_{θJL}=6°C/W



FIG. 1 - FORWARD CURRENT DERATING CURVE

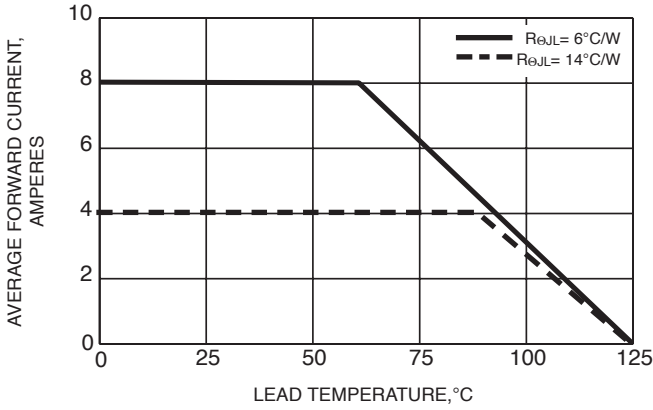


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

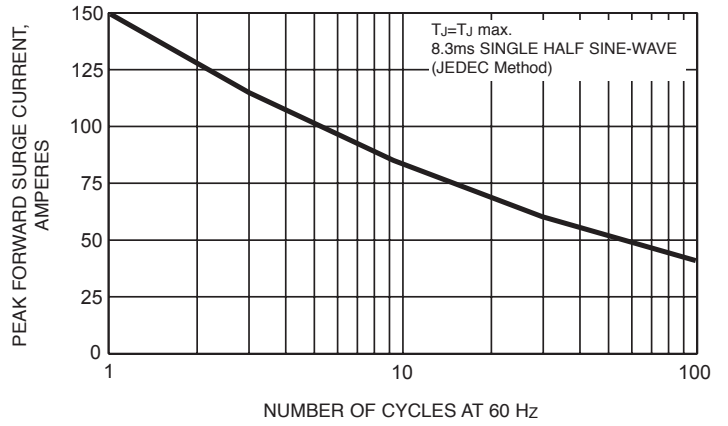


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

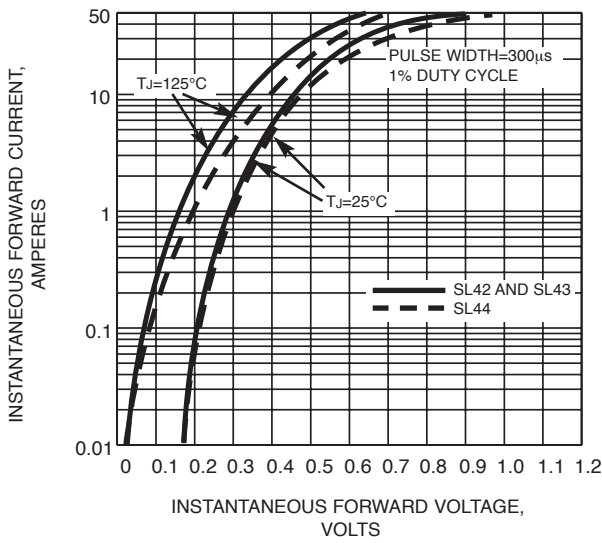


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

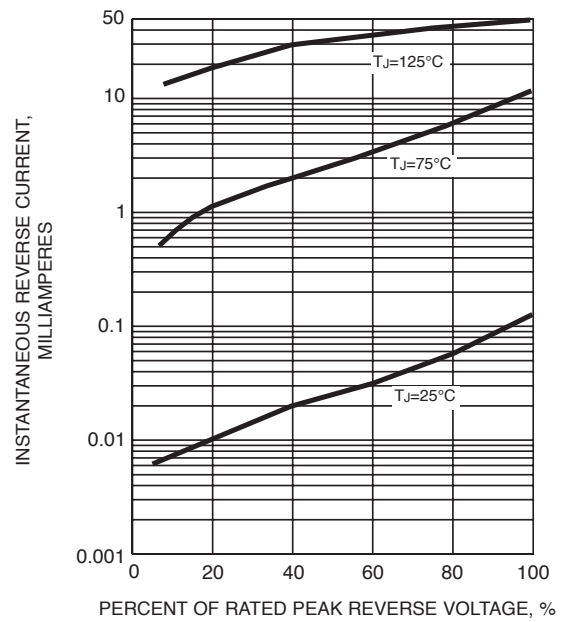


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

