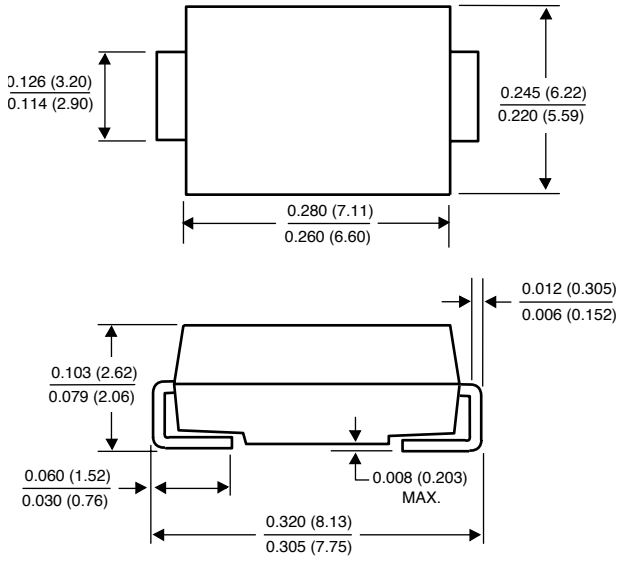
SL42 THRU SL44

LOW V_F SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts **Forward Current -** 4.0 Amperes

DO-214AB



Dimensions in inches and (millimeters)

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) (NOTE 3)	$I_{(AV)}$	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)	$R_{\Theta JA}$ $R_{\Theta JL}$	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, $R_{\Theta JL}$=6°C/W

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RATINGS AND CHARACTERISTIC CURVES SL42 THRU SL44

FIG. 1 - FORWARD CURRENT DERATING CURVE

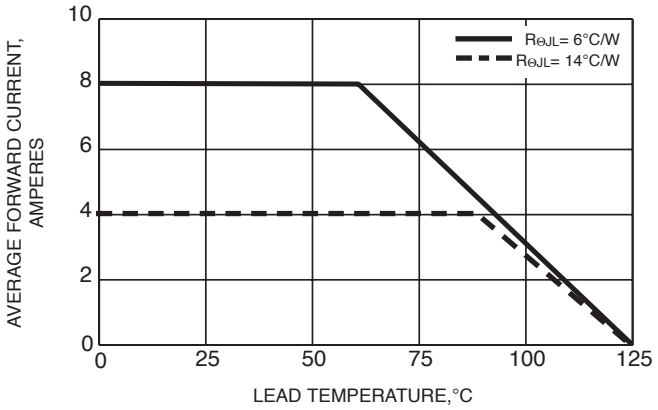


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

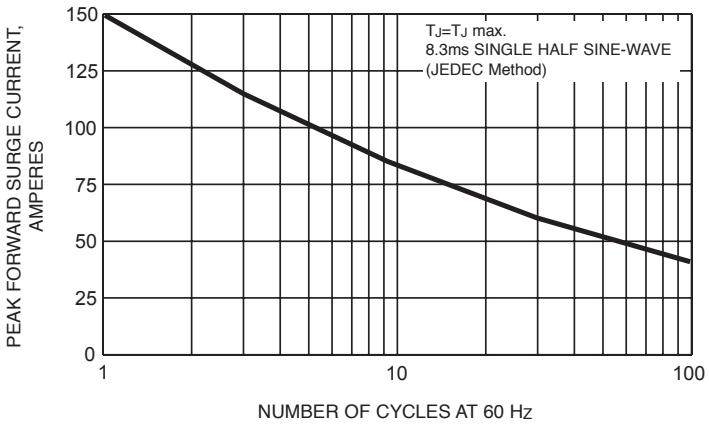


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

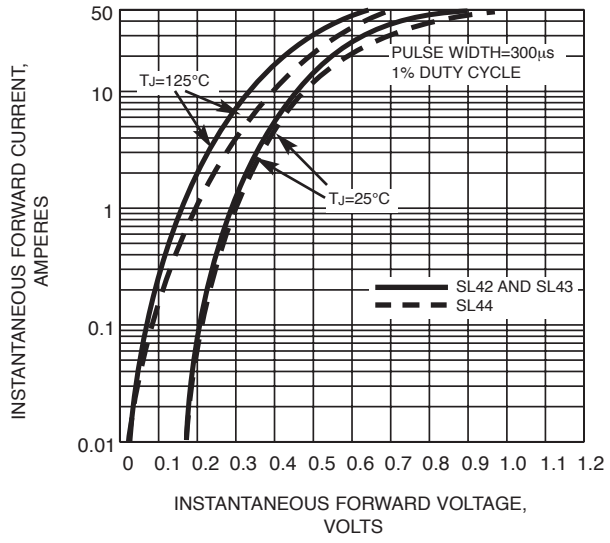


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

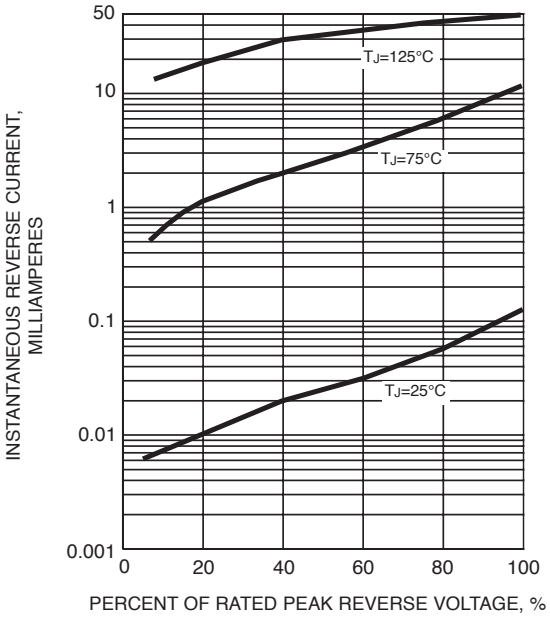
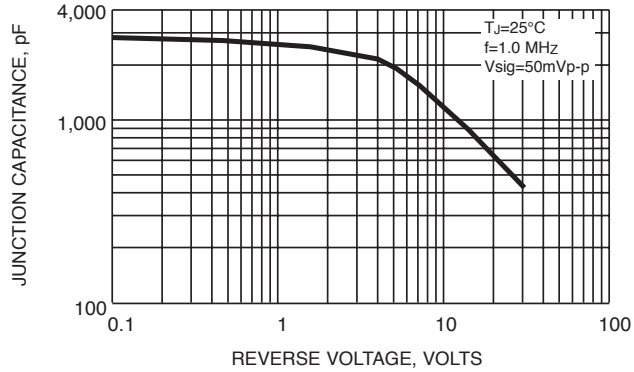


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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