



## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**SSL42 THRU SSL44**

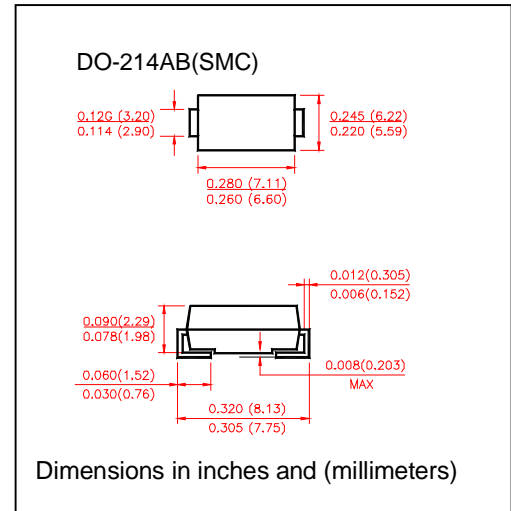
**VOLTAGE RANGE**      20 to 40 Volts  
**CURRENT**                4.0 Ampere

**FEATURES**

- Low profile surface mount package
- Built-in strain relief
- High switching speed, low  $V_F$
- Low voltage drop, high efficiency
- For use in low voltage high frequency inverters, Free willing ,and polarity protection applications
- Guardring for over voltage protection

**MECHANICAL DATA**

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007 ounce, 0.25 gram-DO-214AB(SMC)



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%.

	SYMBOLS	SSL42	SSL43	SSL44	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	Volts
Maximum RMS Voltage	$V_{RMS}$	20	30	40	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	Volts
Maximum Average Forward Rectified Current at $T_L$ see figure1 $T_L=95^\circ C$	$I_{(AV)}$	4.0			Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100			Amps
Maximum Instantaneous Forward Voltage @ 4.0A(Note1)	$V_F$	0.42		0.46	Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ C$	0.5			mA
	$T_A = 100^\circ C$				
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	55			°C/W
	$R_{\theta JL}$	12			
Operating Junction Temperature	$T_J$	(-55 to +150)			°C
Storage Temperature Range	$T_{STG}$	(-55 to +150)			°C

**Notes:**

1. Pulse test: 300  $\mu$  s pulse width,1% duty cycle
2. PCB mounted with 0.2"  $\times$  0.2"(5.0cm  $\times$  5.0cm) copper pads



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## RATING AND CHARACTERISTIC CURVES SSL42 THRU SSL44

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

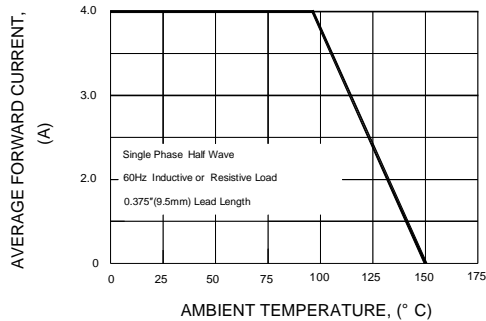


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

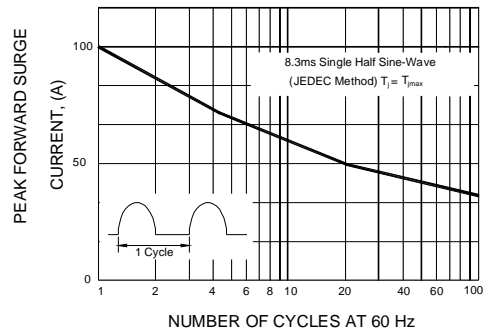


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

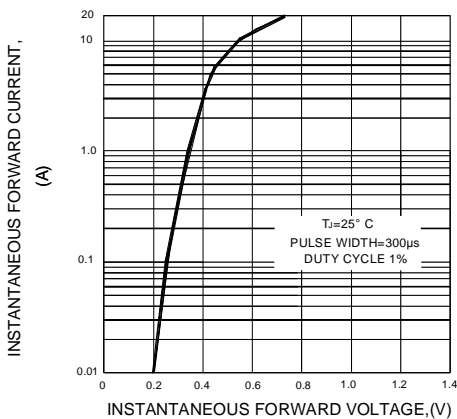


FIG.4-TYPICAL REVERSE CHARACTERISTICS

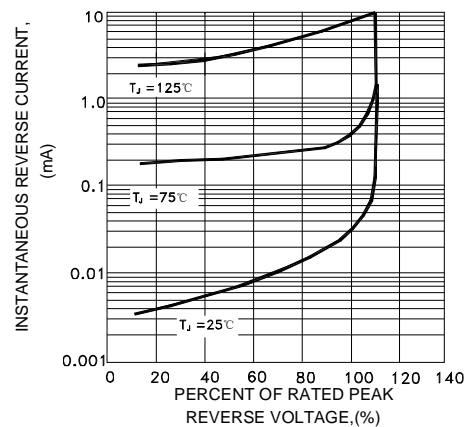


FIG.5-TYPICAL JUNCTION CAPACITANCE

