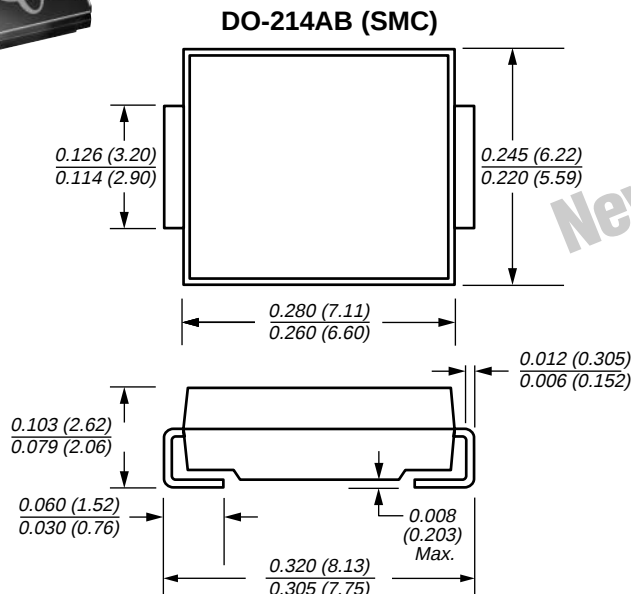


Low V_F Surface Mount Schottky Rectifier

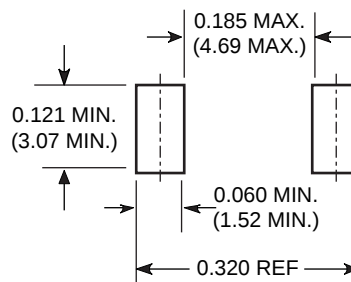
Reverse Voltage 20 to 40V

Forward Current 4.0A



Dimensions in inches and (millimeters)

Mounting Pad Layout DO-214AB



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 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 Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbols	SL42	SL43	SL44	Units
Device marking code		SL2	SL3	SL4	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current (NOTE 2) at T_L (SEE FIG.1) (NOTE 3)	$I_{F(AV)}$	4.0 8.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150			A
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	50 14			$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +125			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to 150			$^\circ\text{C}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Maximum instantaneous forward voltage at (NOTE 1)	$I_F=4.0\text{A}, T_A=125^\circ\text{C}$ $I_F=4.0\text{A}, T_A=25^\circ\text{C}$ $I_F=8.0\text{A}, T_A=125^\circ\text{C}$ $I_F=8.0\text{A}, T_A=25^\circ\text{C}$	V_F	0.31 0.42 0.37 0.47	0.35 0.44 0.41 0.50	V
Maximum DC reverse current (NOTE 1) at rated DC blocking voltage	$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	0.5 35		mA

NOTES:

(1) Pulse test: 300 μs pulse width, 1% duty cycle,

(2) P.C.B. mounted 0.55 x 0.55" (14 x 14mm) copper pad areas, $T_L=90^\circ\text{C}$

(3) Mounted on Al plate, $T_L=60^\circ\text{C}$

Low V_F Surface Mount Schottky Rectifier

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - FORWARD CURRENT DERATING CURVE

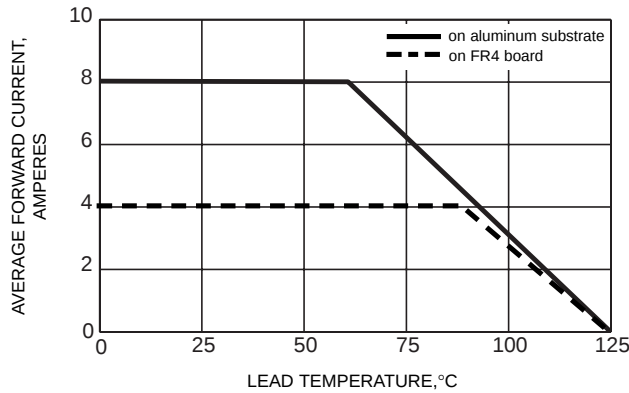


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

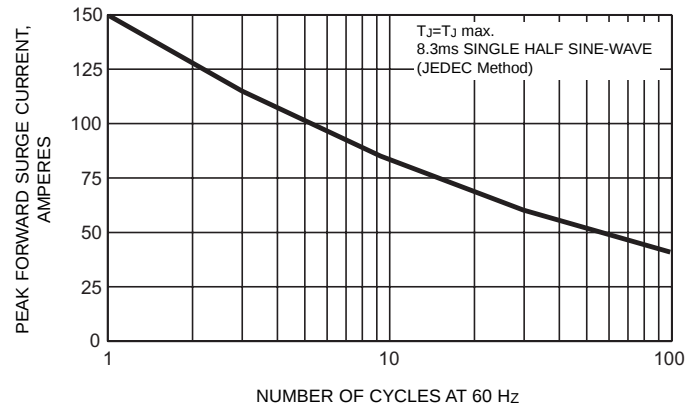


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

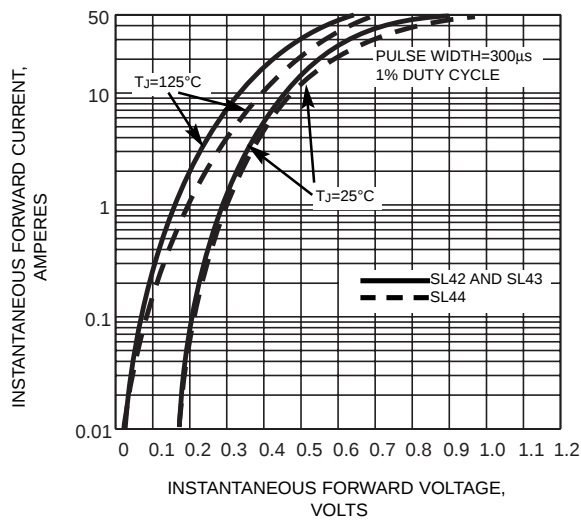


FIG. 4 - TYPICAL REVERSE
CHARACTERISTICS

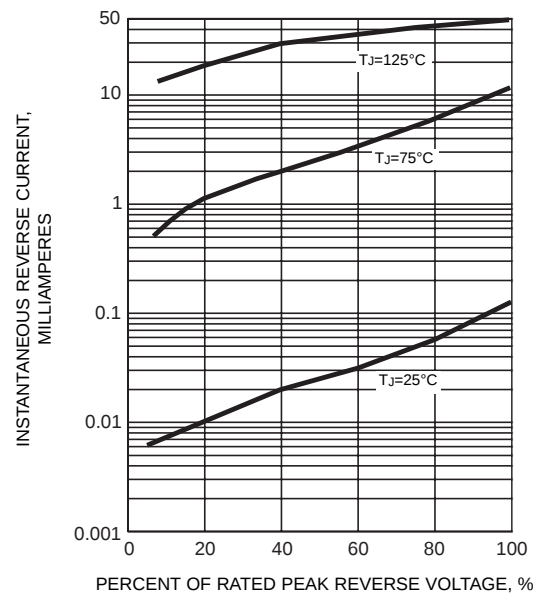


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

