

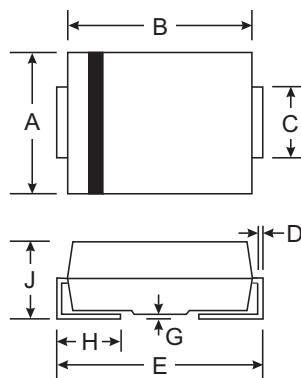
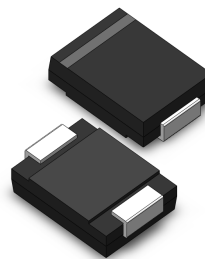
**VOLTAGE RANGE: 20 - 40V**  
**CURRENT: 4.0 A**

### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

### Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SL42	SL43	SL44	Unit
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) $I_F=4.0A, T_A=125^\circ\text{C}$ $I_F=4.0A, T_A=25^\circ\text{C}$ $I_F=8.0A, T_A=125^\circ\text{C}$ $I_F=8.0A, T_A=25^\circ\text{C}$	$V_F$		0.31 0.42 0.37 0.47	0.35 0.44 0.41 0.50	Volts
Maximum DC reverse current (NOTE 1) $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$		0.5 35.0		mA
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		$^\circ\text{C}$

#### NOTES:

- (1) Pulse test: 300 $\mu\text{s}$  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,  $T_L=60^\circ\text{C}$ ,  $R_{\theta JL}=6^\circ\text{C/W}$

## RATINGS AND CHARACTERISTIC CURVES SL42 THRU SL44

FIG. 1 - FORWARD CURRENT DERATING CURVE

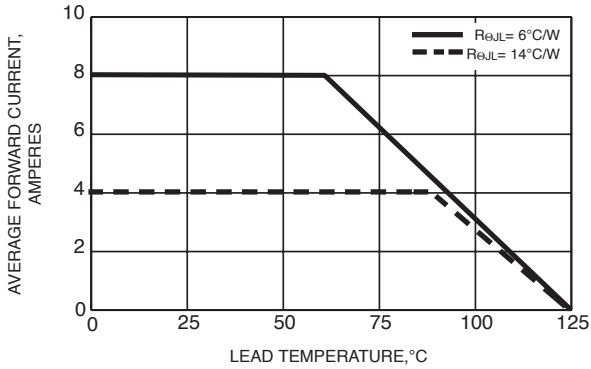


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

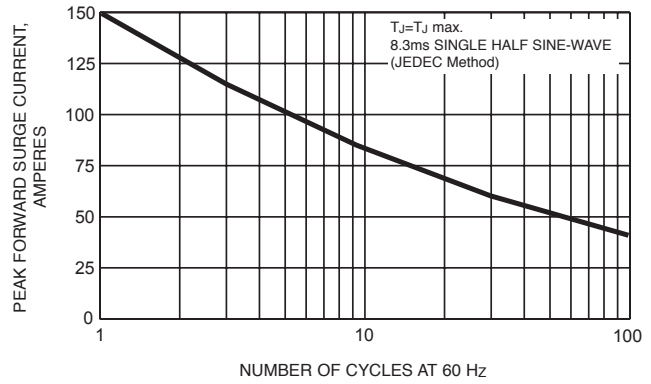


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

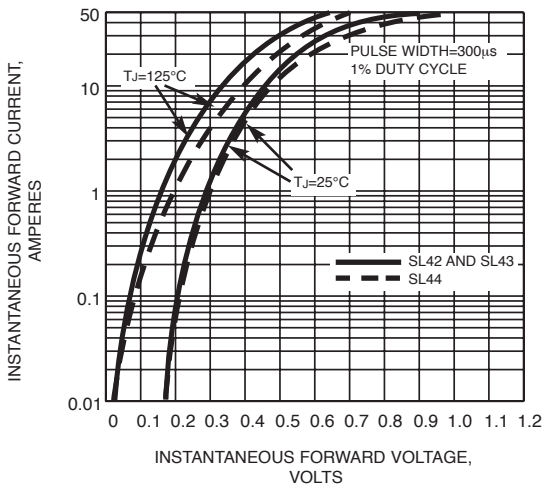


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

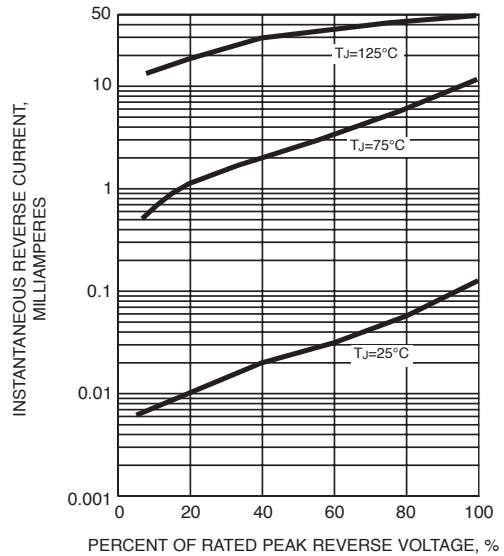


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

