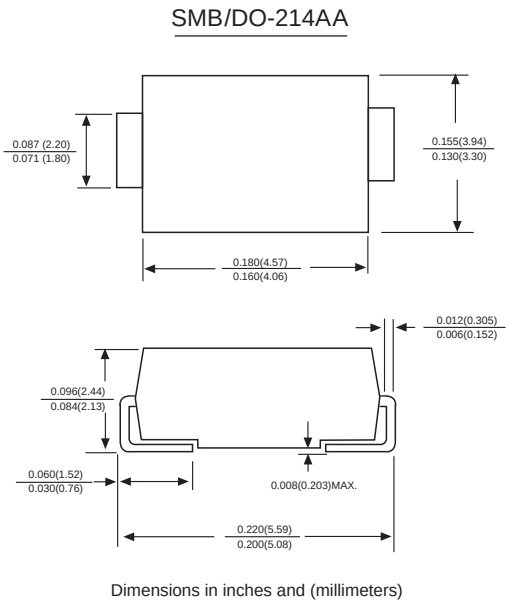
SL52~SL510

5.0Amp Schottky Barrier Rectifiers

Features

- For surface mounted applications
- Low forward voltage drop
- Low power loss,high efficiency
- Construction utilizes void-free molded plastic technique
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals



Dimensions in inches and (millimeters)

Mechanical Data

Case: JEDEC DO-214AA molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight : 0.003 ounce, 0.093 grams

Maximum Ratings And Electrical Characteristics

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

MDD Catalog Number	SYMBOLS	SL52	SL54	SL56	SL510	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	100	VOLTS
Maximum RMS voltage	V_{RMS}	14	28	42	70	VOLTS
Maximum DC blocking voltage	V_{DC}	20	40	60	100	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	5.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120				Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.40	0.45	0.55	0.70	Volts
Maximum DC reverse current T_A=25℃	I_R	1.0			0.5	mA
at rated DC blocking voltage T_A=100℃		50.0			20.0	
Typical junction capacitance (NOTE 1)	C_J	380				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	10				°C/W
Operating junction temperature range	T_J,	-50 to +125				°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 0.2x0.2 (5.0x5.0mm) copper pad areas

Ratings And Characteristic Curves

SL52 THRU SL510

FIG. 1- FORWARD CURRENT DERATING CURVE

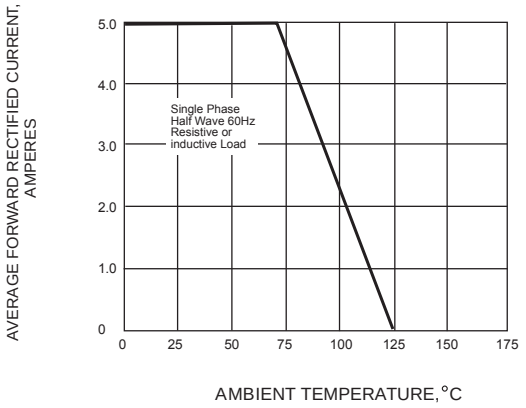


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

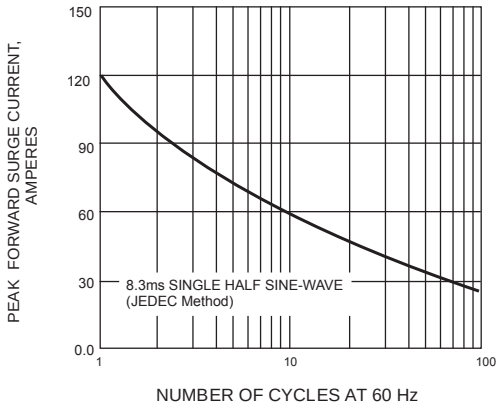


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

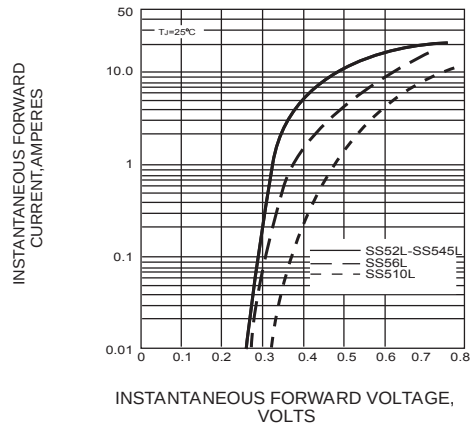


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

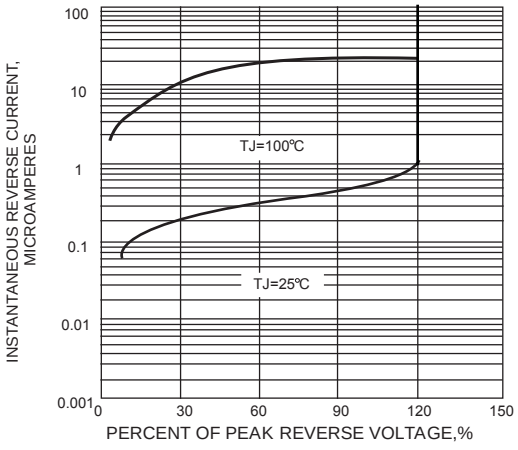


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE