

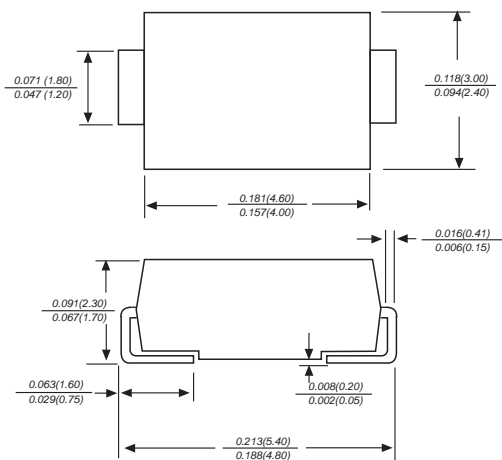


# SL12 THRU SL110

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 1.0 Ampere

### DO-214AC



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC DO-214AC molded plastic body  
**Terminals:** leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.002 ounce, 0.07 grams

## 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 current derate by 20%.

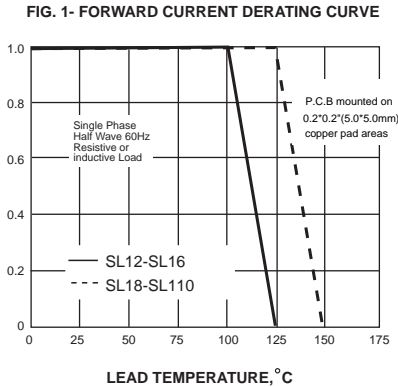
MDD Catalog Number	SYMBOLS	SL12	SL13	SL14	SL15	SL16	SL18	SL110	UNITS		
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V		
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V		
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V		
Maximum average forward rectified current at $T_L$ (see fig. 1)	$I_{(AV)}$	1.0							A		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30.0							A		
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.45			0.5		0.7		V		
Maximum DC reverse current at rated DC blocking voltage	$I_R$	0.5					0.2			mA	
$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$		10.0					5.0				
Typical junction capacitance (NOTE 1)	$C_J$	110			90				pF		
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0								°C/W	
Operating junction temperature range	$T_J$	-55 to +125					-55 to +150				°C
Storage temperature range	$T_{STG}$	-55 to +150								°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

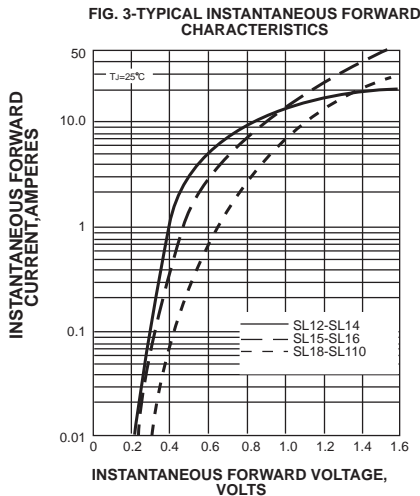
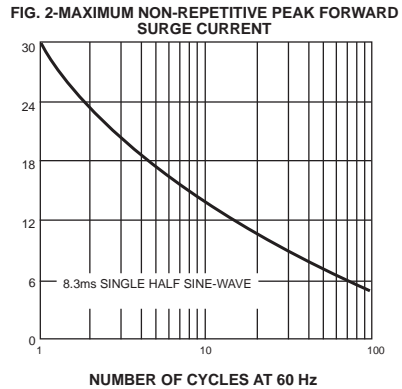


# RATINGS AND CHARACTERISTIC CURVES SL12 THRU SL110

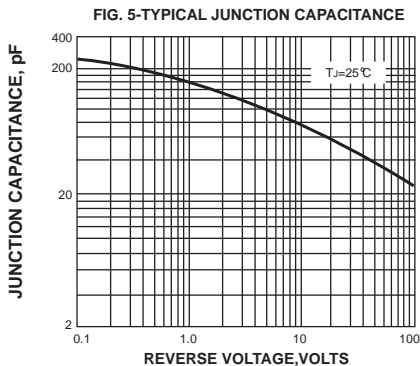
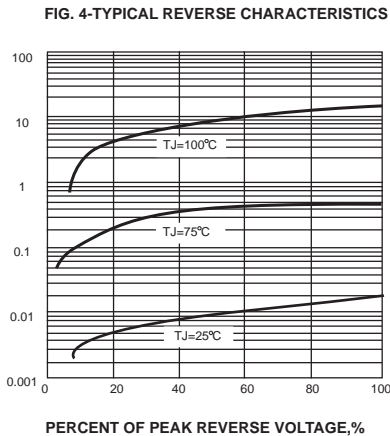
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES



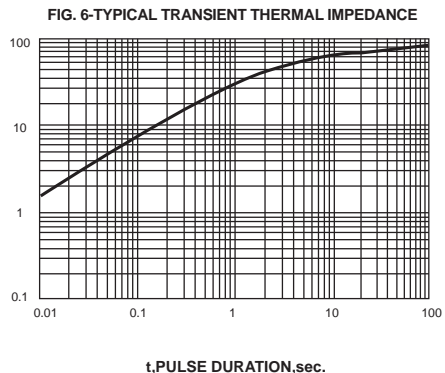
PEAK FORWARD SURGE CURRENT,  
AMPERES



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES



TRANSIENT THERMAL IMPEDANCE,  
°C/W



The cruve graph is for reference only, can't be the basis for judgment(

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