

# SL22 THRU SL24

## SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER



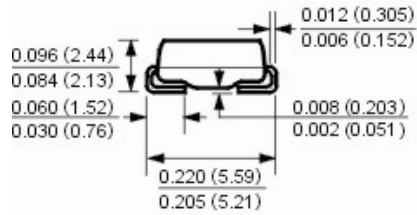
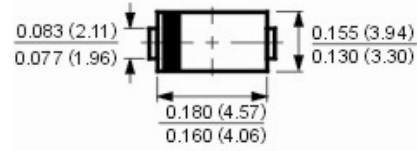
康比電子  
HORNBY ELECTRONIC

**REVERSE VOLTAGE:** 20 to 40 VOLTS  
**FORWARD CURRENT:** 2.0 AMPERE

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- High current capability, low  $V_F$
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 250°C /10 seconds at terminals

### DO-214AA(SMB)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

Case: Molded plastic, DO-214AA(SMB)  
Terminals: Axial leads, solderable per MIL-STD-750, method 2026 guaranteed  
Polarity: Color band denotes cathode end  
Packaging: 12mm tape per EIA STD RS-481  
Weight: 0.003 ounce, 0.093 gram

### 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	SL22	SL23	SL24	Units
Maximum Recurrent 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 at $T_L$ (See Fig. 1)	$I_{(AV)}$	2.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50			Amp
Maximum Forward Voltage at 2.0A (Note 1)	$V_F$	0.38	0.38	0.40	Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.5			mAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	75			°C/W
	$R_{\theta JL}$	17			
Operating Junction Temperature Range	$T_J$	-50 to +125			
Storage Temperature Range	$T_{stg}$	-50 to +150			°C

### NOTES:

- 1- Pulse test: 300µs pulse width, 1% duty cycle
- 2- P.C.B. mounted with 0.3 x 0.3" (8.0 x 8.0mm) Copper Pad Areas

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### RATINGS AND CHARACTERISTIC CURVES

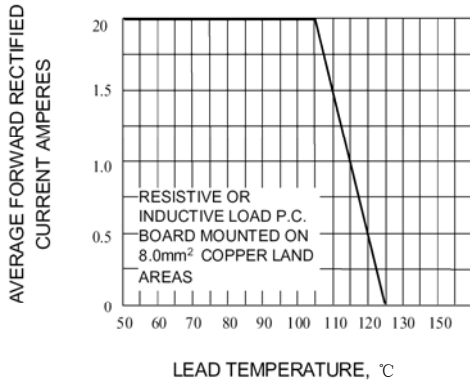


Fig. 1-FORWARD CURRENT DERATING CURVE

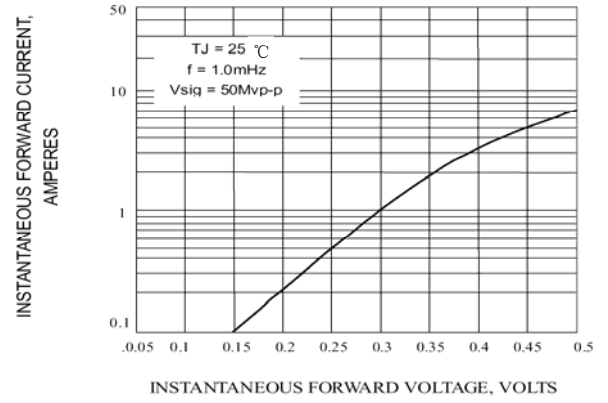


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

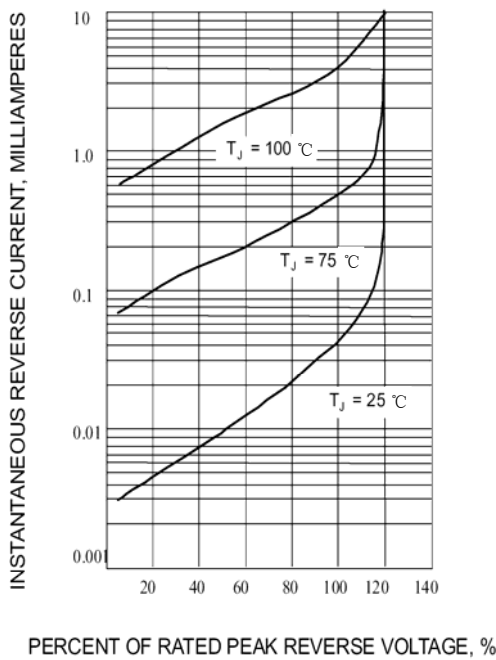


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

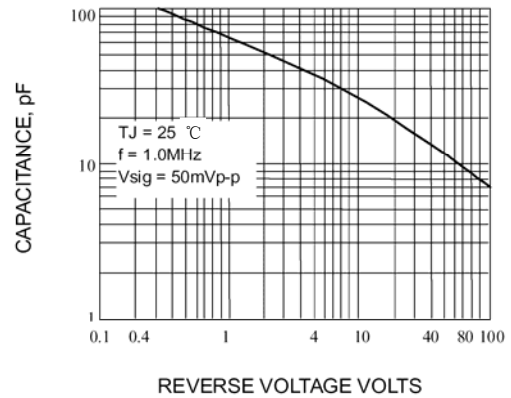


Fig. 4-TYPICAL JUNCTION CAPACITANCE

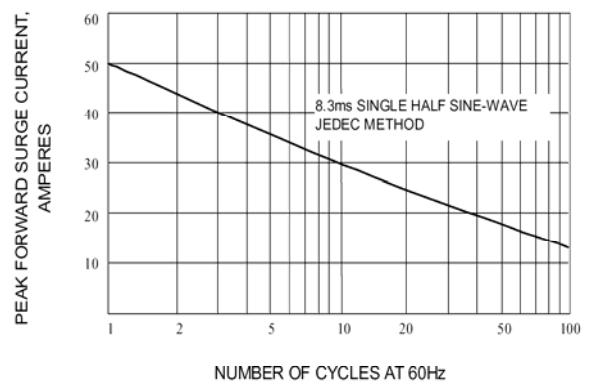


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT