## **SR320 THRU SR3A0**

#### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 60 Volts Forward Current - 1.0Ampere

#### **FEATURES**

- . Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- . Metal sliicon junction ,majority carriet conduction
- . Guard ring for overcoltage protection
- . Low power loss, high efficiency
- . High current capability ,Low forward voltage drop
- . High surge capability
- . For use in low voltage ,high frequency inverters,

free wheeling, and polarilty protection applications

. High temperature soldering guaranteed: 250 T/10 seconds at terminals,

0.375"(9.5mm)lead length, 5lbs.(2.3kg)tension

#### **MECHANICAL DATA**

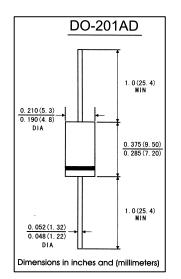
. Case: JEDEC DO-201AD molded plastic body

. Terminals: plated axial leads, solderable per MIL-STD-750, method 2026

. Polarity: coler band denotes cathode end

. Mounting Position: Any

. Weight: 0.041 ounce, 1.15 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 T ambient temperature unless otherwise specified, Single phase, half wave, resistive or inductive) load. For capacitive load, derate by 20%)

		Symbols	SR320	SR330	SR340	SR350	SR360	SR380	SR3A0	Units				
Maximum repetitive peak reverse voltage		VRRM	20	30	40	50	60	80	100	Volts				
Maximum RMS voltage		VRMS	14	21	28	35	42	57	71	Volts				
Maximum DC blocking voltage		VDC	20	30	40	50	60	80	100	Volts				
Macimum average forward rectified		I(AV)	3.0							Amp				
current 0.375"(9.5mm)lead length (see Fig.1)														
Peak forward surge current 8.3ms singel half														
sine-wave superimposed on rated load		IFSM	IFSM 80.0							Amps				
(JEDEC method)														
Maximum instantaneous forward voltage at 3.0 A(Note 1)		VF	0.55 0.70 0.85				Volts							
Maximum instantaneous reverse	TA=25℃	l R	1.5							mA				
current at rated DC blocking voltage(Note 1)	TA=100℃		20 10											
Typeical junction capacitance(Note 3)		CJ	250 160					pF						
Typeical thermal resistance(Note 2)		R θ <sub>IA</sub>	40.0							TC/W				
		R Өл	10.0											
Operating junction temperature range		TJ	-65 to +125 -65 to +150						τ					
storage temperature range		Tstg	-65 to +150							τ				

Notes: 1. Pulse test: 300  $\mu$  s pulse width,1% duty cycle

2.Thermal resistance from juntion to lead vertical P.C.B. Mounted, 0.5"(12.7mm)lead length



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

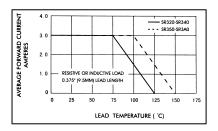
Reverse Voltage - 20 to 60 Volts Forward Current - 1.0Ampere

with 2.5X2.5"(63.5X63.5mm)copper pads

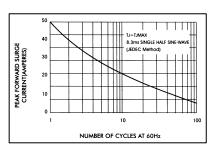
3. Measure a 1MHz and reverse voltage of 4.0 volts

### RATINGS AND CHARACTERISTIC CURVES SR320 THRU SR3A0

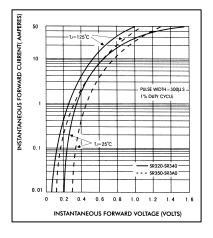
#### FLG.1-FORWARD CURRENT DERATING CURVE



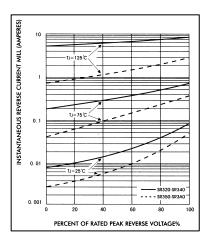
# FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



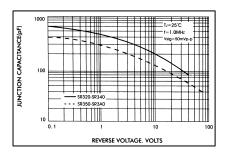
## FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



#### FIG.4-TYPICAL REVERSE CHARACTERISTICS



#### FIG.5-TYPICAL JUNCTION CAPACITANCE



#### FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

