

Kingtronics®

SS52 THRU SS510

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 100 Volts **CURRENT** 5.0 Ampere

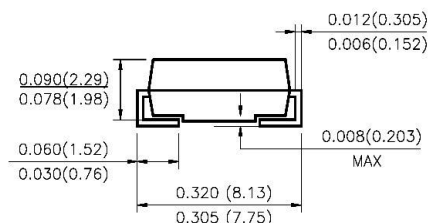
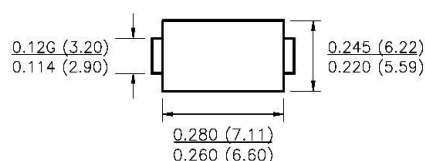
FEATURES

Low profile surface mount package
 Built-in strain relief
 High switching speed
 Low voltage drop, high efficiency
 For use in low voltage high frequency inverters,
 Free willing, and polarity protection applications
 Guarding for over voltage protection

MECHANICAL DATA

Case: Transfer molded plastic
Epoxy: UL 94V-0 rate flame retardant
Polarity: Indicated by cathode band
Lead: Solder plated, solderable per MIL-STD-750 method 2026
Polarity: Color band denotes cathode end
Weight: 0.007 ounce, 0.25 gram

DO-214AB (SMC)



Dimensions in inches and (millimeters)

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%

PARAMETER	SYMBOL	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	UNIT	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	90	100	Volts	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	63	70	Volts	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	90	100	Volts	
Maximum Average Forward Rectified Current at T _A =75°C	I(AV)	5.0								Amps	
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100								Amps	
Maximum Instantaneous Forward Voltage at 1.0A	V _F	0.55			0.75		0.85			Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage	I _R	T _A = 25°C	0.5								mA
		T _A = 125°C	20.0			10.0					
Typical Thermal Resistance (Note 2)	R _{θJA}	55								°C/W	
	R _{θJL}	12									
Operating Junction Temperature	T _J	-55 to +150				-55 to +150					°C
Operating and Storage Temperature Range	T _{STG}	-55 to +150									°C

1. Pulse test: 300μs pulse width, 1% duty cycle
2. PCB mounted with 0.55"×0.55" (14mm×14mm) copper pads

Kingtronics® International Company

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

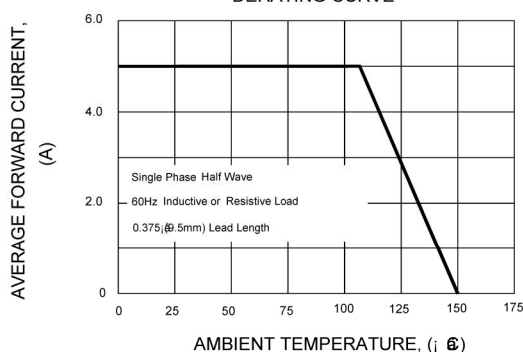


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

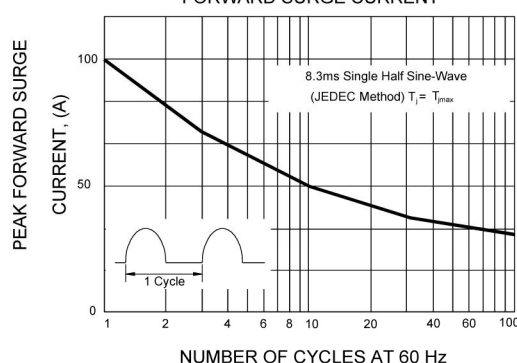


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

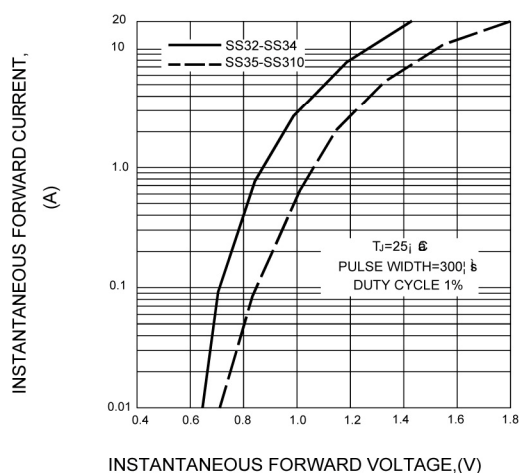


FIG.4-TYPICAL REVERSE CHARACTERISTICS

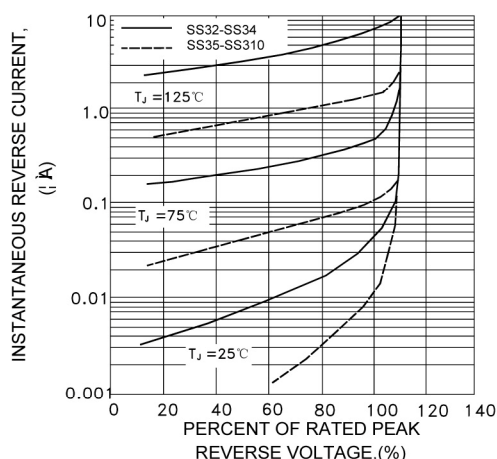
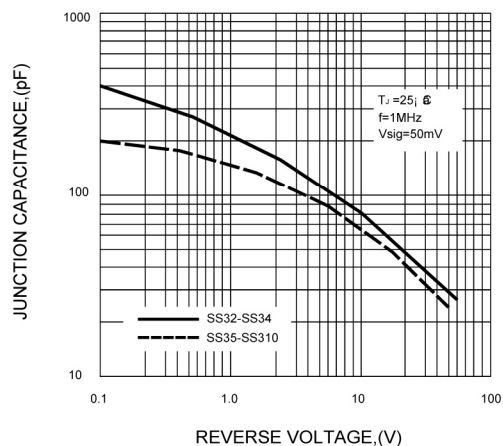


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.