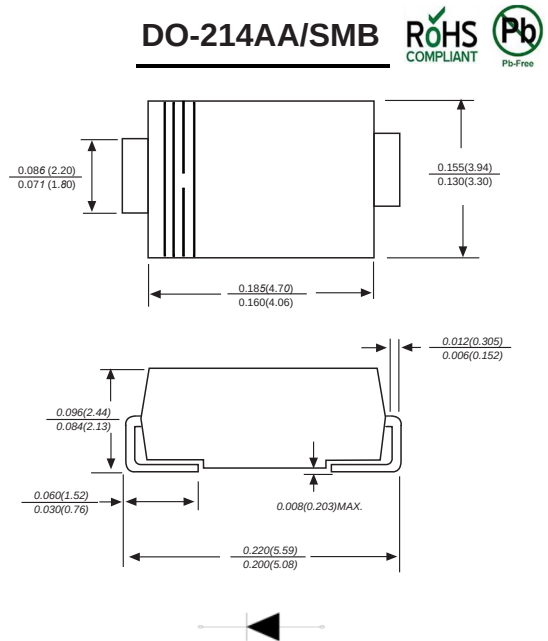


FEATURE

Plastic package has Underwriters Laboratory Flammability Classification 94V-0
 For surface mounted applications
 Low profile package
 Built-in strain relief
 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 polarity protection applications
 Guard ring for over voltage protection
 High temperature soldering guaranteed: 250°C /10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA SMB molded plastic body
 Terminals: Solder plated, solder able per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)

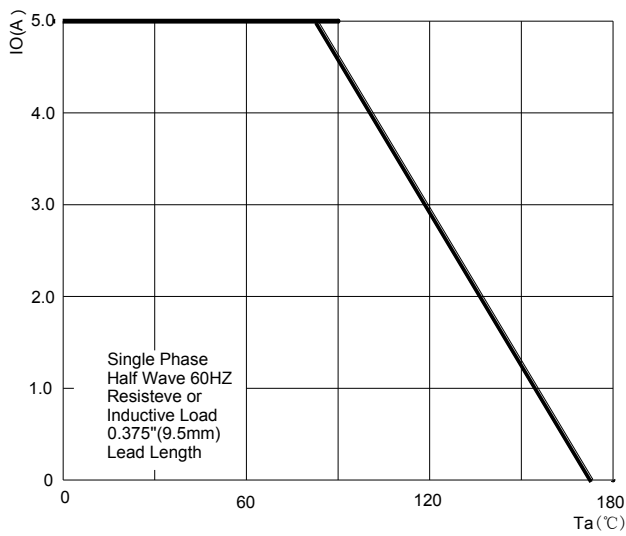
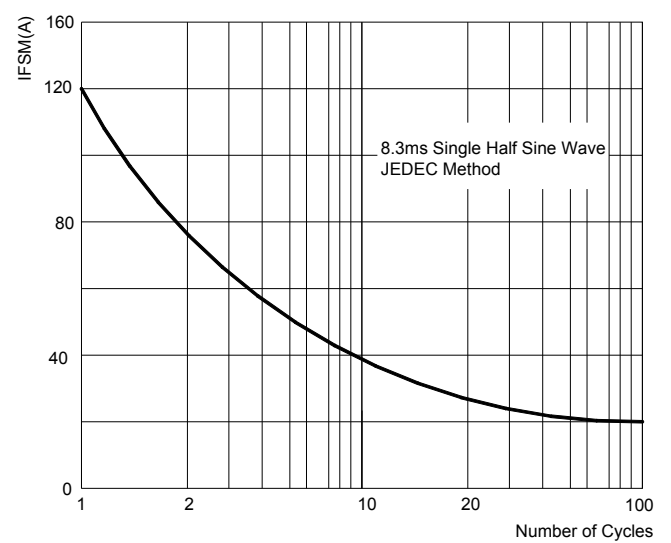
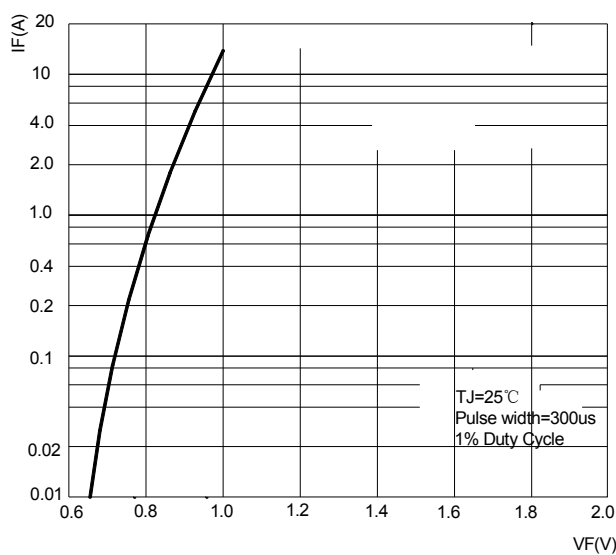
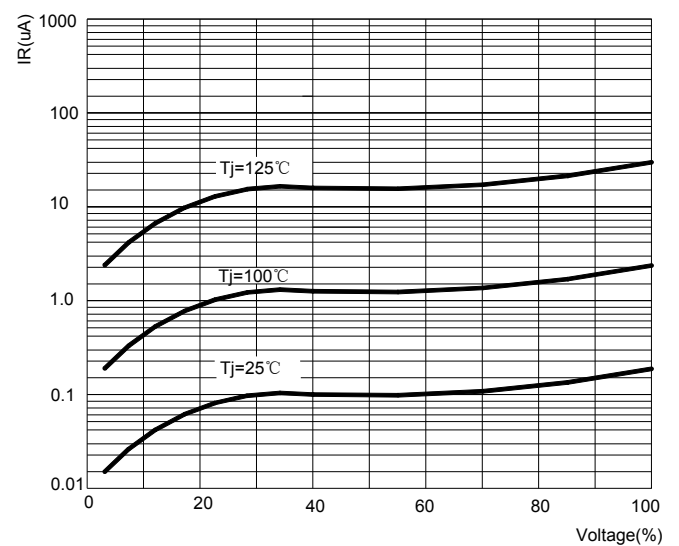
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%

	SYMBOL	NSS510	Units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	100	V
Maximum RMS Voltage	V _{rms}	70	V
Maximum DC blocking Voltage	V _{dc}	100	V
Maximum Average Forward Rectified Current	I _{f(av)}	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	120.0	A
Maximum Forward Voltage at rated Forward current (Note 1)	V _f	0.92	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I _r	0.02 0.5	uA
Typical Thermal Resistance (Note 2)	R _{th(ja)}	50.0	°C/W
Storage and Operating Temperature Range T _{stg} , T		-55 ~ +175	°C

Note:

1. Pulse test: 300μs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.2 x 0.2 inches (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES
FIG.1: FORWARD CURRENT DERATING CURVE

FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

TYPICAL FORWARD CHARACTERISTICS

FIG.4: TYPICAL REVERSE CHARACTERISTICS

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time
