

FEATURES:

- Low power loss, high efficiency
- High surge current capability
- Low forward voltage drop
- For use in low voltage, high frequency inverters, free wheeling application
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low profile package
- Build-in strain relief

MECHANICAL DATA

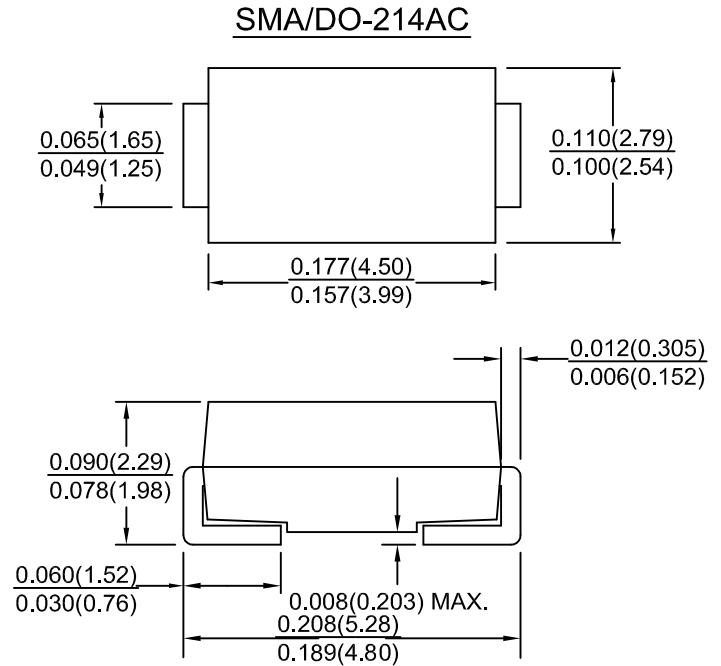
Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy

Terminals : Solder plated, solderable per MIL-STD-750 Method 2026

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 0.063 gram, 0.002 ounce



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	S12	S13	S14	S15	S16	S18	S19	S1A0	Units
Maximum recurrent peak reverse voltage	VRRM	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	VRMS	14	21	28	35	42	56	64	70	Volts
Maximum DC blocking voltage	VDC	20	30	40	50	60	80	90	100	Volts
Maximum average forward rectified current	I(AV)	1.0								Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	IFSM	30								Amps
Maximum instantaneous forward voltage at 1.0 A (NOTE 1)	VF	0.50	0.55		0.7 5		0.8 5		Volts	
Maximum instantaneous reverse current Ta=25℃ at rated DC blocking voltage (NOTE 1) Ta=100℃	IR	0.5 10.0								mA
Typical thermal resistance	Rth-JA Rth-JL	88 28								℃/W
Operating junction temperature range	Tj	-65 to +150								℃
Storage temperature range	Tstg	-65 to +150								℃

NOTE :

1.Pulse test: 300 μ s pulse width, 1% duty cycle

RATINGS AND CHARACTERISTIC CURVES S12 THRU S1A0

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

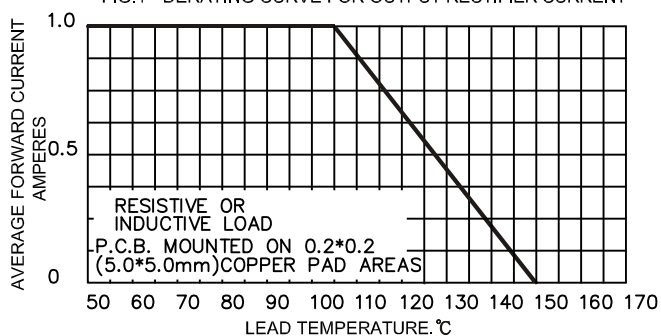


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

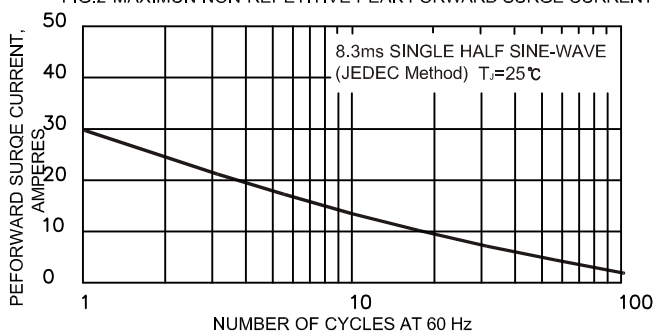


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

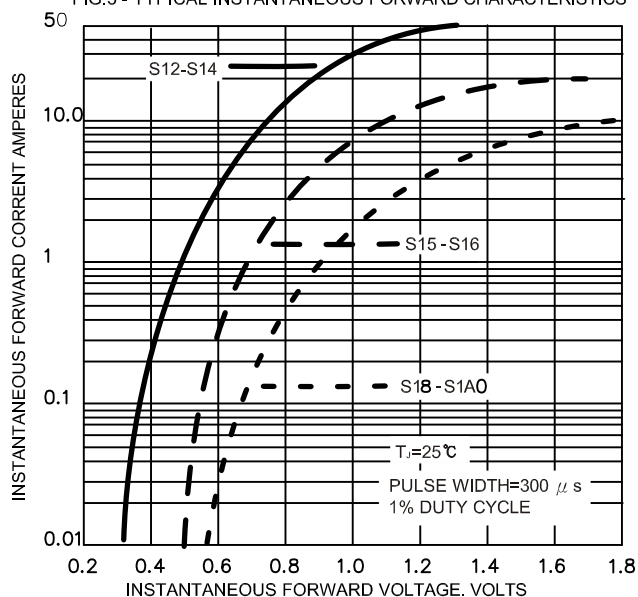


FIG.4-TYPICAL REVERSE CHARACTERISTICS

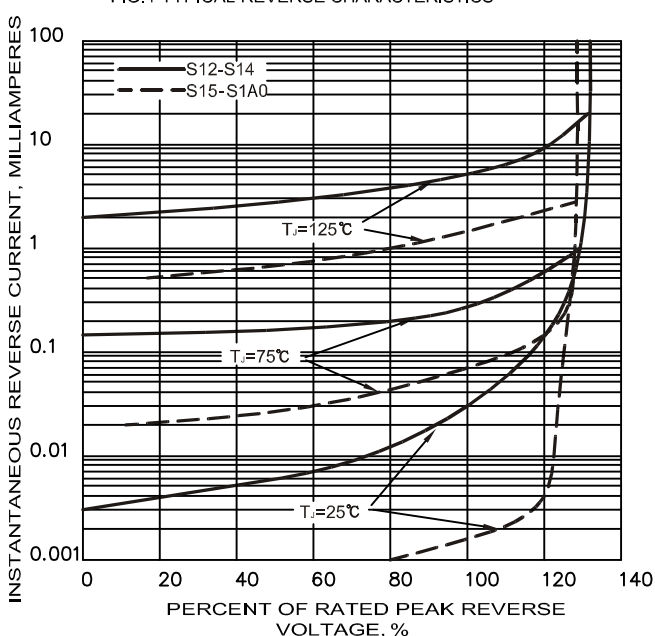


FIG.5-TYPICAL JUNCTION CAPACITANCE

