

AR/ARS 5005 THRU AR/ARS 5010

AUTOMOTIVE SILICON BUTTON DIODE

FEATURES

- . Plastic material used carries Underwriters Laboratory Classification 94V-O
- . Low cost construction utilizing void-free molded plastic technique
- . Low cost
- . Diffused junction
- . Low leakage
- . High current capability
- . High temperature soldering guaranteed: 250°C for 10 seconds

MECHANICAL DATA

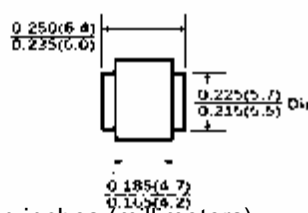
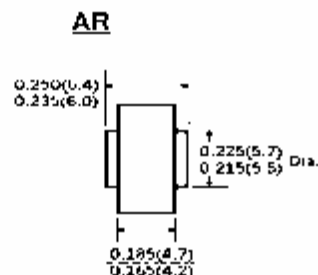
Case: Molded plastic case

Terminals: Plated terminals, solderable per MIL-STD-202, method 208

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 1.8 grams (0.07ounce)



Dimension in inches (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C Ambient temp. Unless otherwise specified.

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

For capacitive load, derate current by 20%

	SYMBOL	AR/ARS							UNITS
		5005	501	502	504	506	508	5010	
Maximum recurrent reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at Tc=150°C	I(AV)	50.0							Amps
Peak forward surge current single sine-wave on rated load (JEDEC Method)	IFSM	400							Amps
Maximum instantaneous forward voltage drop at 50A	VF	1.0					1.1		Volts
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=125°C	IR	25.0 250.0							μA
Maximum DC block voltage temperature	TA	+150							°C
Typical thermal resistance	RθJA	1.0							°C/W
Typical junction capacitance	CJ	300							pF
Operating junction temperature range	TJ	-50 TO +175							°C
Storage temperature range	TSTG	-50 TO +175							°C
Polarity and voltage denotation color band		Red	Yellow	Silver	Orange	Green	Blue	Violet	

RATING AND CHARACTERISTIC CURVES AR/ARS 5005 THRU 5010

FIG. 1 – DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

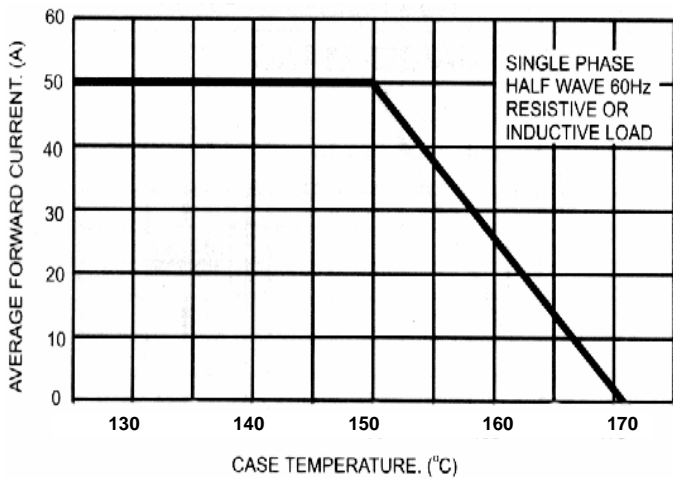


FIG. 2 – MAXIMUM NON – REPETITIVE PEAK FORWARD SURGE CURRENT

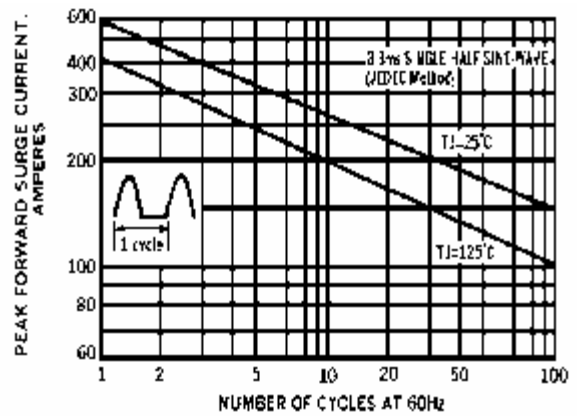


FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

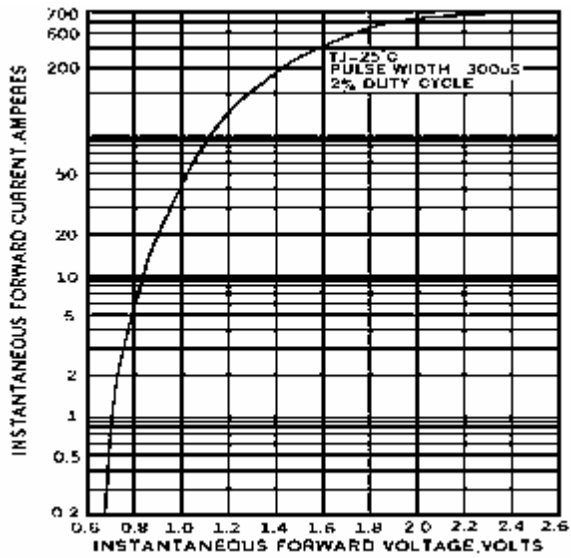


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

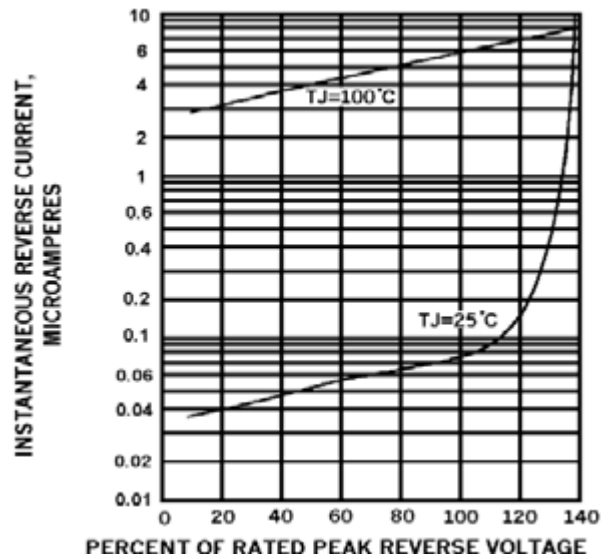


FIG. 5 – TYPICAL JUNCTION CAPACITANCE

