

PFS

SCHOTTKY BARRIER RECTIFIER

SR520 THRU SR5100

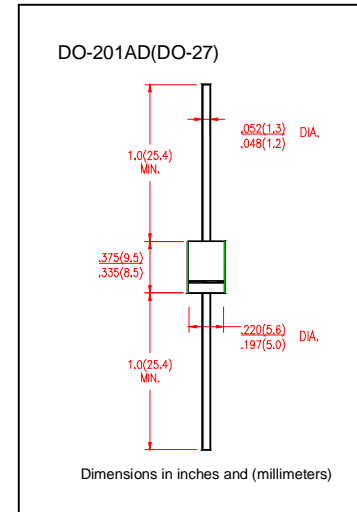
VOLTAGE RANGE **20 to 100 Volts**
CURRENT **5.0 Ampere**

FEATURES

- Fast switching speed
- Low forward voltage
- Low power high efficiency
- High surge capability
- High temperature soldering guaranteed
250°C/10 seconds, 0.373" (9.5mm) lead length

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: solderable per MIL-STD-202E method 208C
- Polarity: Color band denoted cathode end
- Mounting position: Any
- Weight: 0.045 ounce, 1.27 gram



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%

	SYMBOLS	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) Lead length, (Note 1) See Fig. 1	$T_L = 60^\circ\text{C}$ (SR502-504)	5.0							Amps
	$T_L = 85^\circ\text{C}$ (SR505-510)								
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150							Amps
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	0.55		0.75		0.85		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element (Note 1)	$T_A = 25^\circ\text{C}$	1.0							mA
	$T_A = 100^\circ\text{C}$	50							
Typical Junction Capacitance (Measured at 1.0Hz and applied reverse voltage of 4.0V)	C_J	550		450		350		pF	
Typical Thermal Resistance	$R_{\theta JA}$	15							°C/W
Operating Junction Temperature Range	T_J	(-55 to +150)							°C
Storage Temperature Range	T_{STG}	(-55 to +150)							°C

Notes:

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



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RATING AND CHARACTERISTIC CURVES SR520 THRU SR5100

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

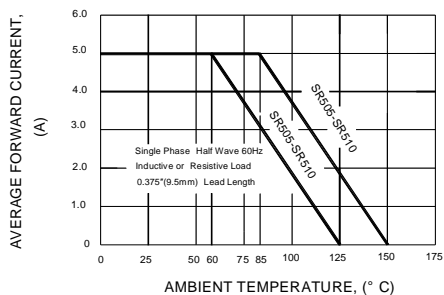


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

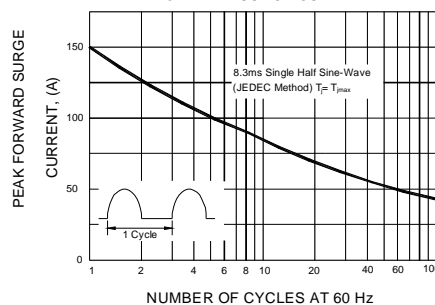


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

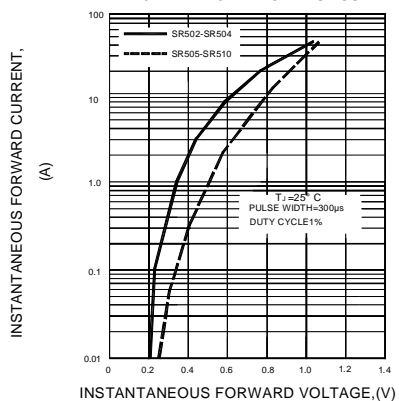


FIG.4-TYPICAL REVERSE CHARACTERISTICS

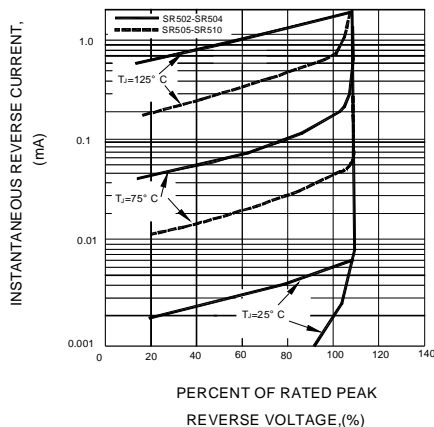


FIG.5-TYPICAL JUNCTION CAPACITANCE

