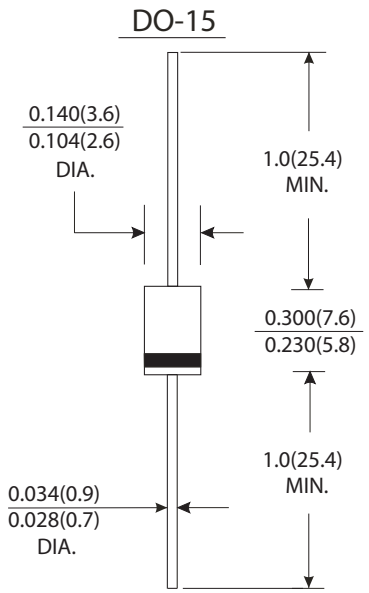
DEC

SR202 THRU SR2100

CURRENT 2.0Amperes
VOLTAGE 20 to 100 Volts

Features

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- 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
- High temperature soldering guaranteed : 250℃/10 seconds at terminals, 0.375" (9.5mm) lead length, 5lbs. (2.3Kg) tension



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC DO-15 molded plastic body
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.014 ounce, 0.39 gram

Maximum Ratings and Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%)

		Symbols	SR202	SR203	SR204	SR205	SR206	SR208	SR2100	Units
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 at T_L=75℃		$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	50.0							Amps
Maximum instantaneous forward voltage at 1.0A (Note 1)		V_F	0.55			0.70		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	T_A=25℃	I_R	1.0							mA
	T_A=100℃		10							
Typical junction capacitance (Note 3)		C_J	170							pF
Typical thermal resistance (Note 2)		$R\Theta_{JA}$	35.0							℃/W
Operating junction temperature range		T_J	-65 to +125							℃
Storage temperature range		T_{STG}	-65 to +150							℃

Notes:
(1) Pulse test: 300μS pulse width, 1% duty cycle
(2) Thermal resistance from junction to lead, and/or to ambient P.C.B. mounted with 0.375"(9.5mm) lead length with 1.5X1.5"(38X38mm) copper pads
(3) Measured 1.0MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES SR202 THRU SR2100

FIG.1-FORWARD CURRENT DERATING CURVE

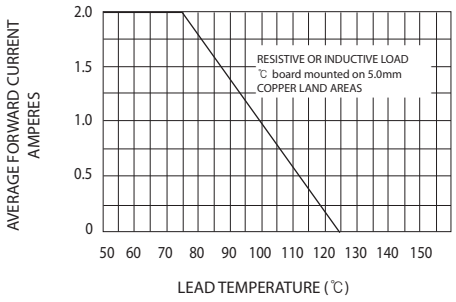


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

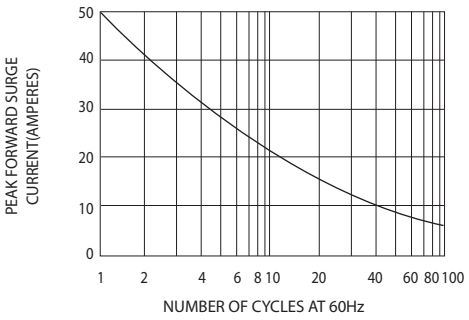


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

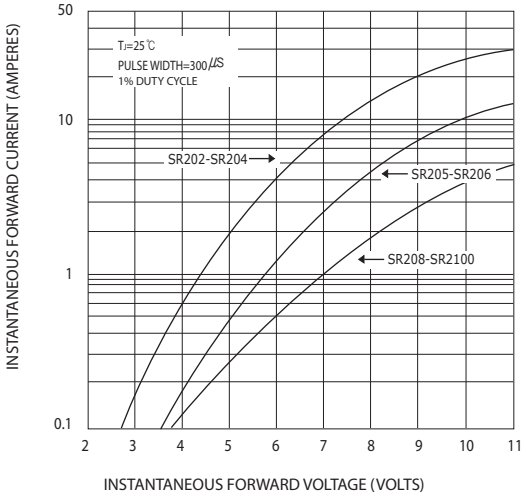


FIG.4-TYPICAL REVERSE CHARACTERISTICS

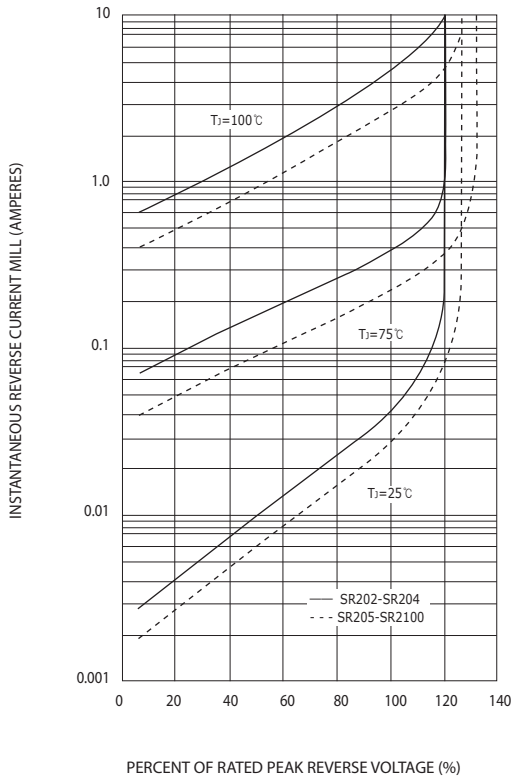


FIG.5-TYPICAL JUNCTION CAPACITANCE