

SR520~SR5200

5.0Amp Schottky Barrier Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

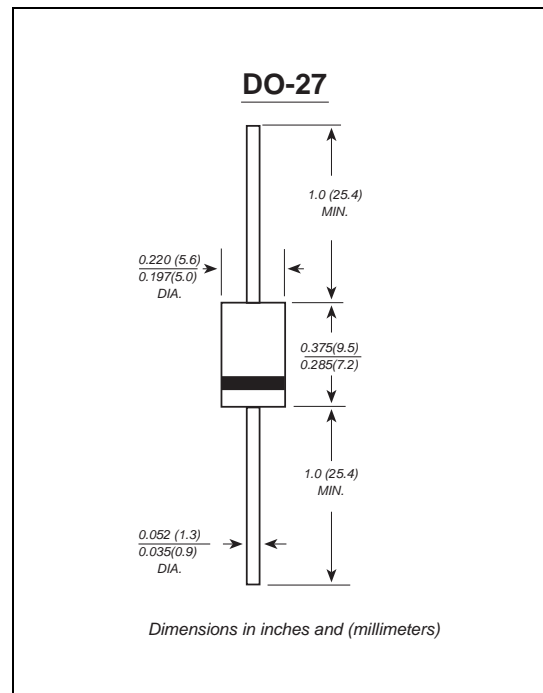
Case: JEDEC DO-27 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04 ounce, 1.10 grams



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 current derate by 20%.

MDD Catalog Number	SYMBOLS	SR 520	SR 540	SR 545	SR 550	SR 560	SR 570	SR 580	SR 590	SR 5100	SR 5150	SR 5200	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	45	50	60	70	80	90	100	150	200	VOLTS
Maximum RMS voltage	V _{RMS}	14	28	31	35	42	49	56	63	70	105	140	VOLTS
Maximum DC blocking voltage	V _{DC}	20	40	45	50	60	70	80	90	100	150	200	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1)	I <sub(av)< sub=""></sub(av)<>	5.0											Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	125.0											Amps
Maximum instantaneous forward voltage at 5.0A	V _F	0.55		0.70			0.85			0.95		Volts	
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5									0.2		mA
		20.0					10.0				2.0		
Typical junction capacitance (NOTE 1)	C _J	500				400							pF
Typical thermal resistance (NOTE 2)	R _{θJA}	25.0											°C/W
Operating junction temperature range	T _J	-55 to +125					-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150											°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings And Characteristic Curves

SR520 THRU SR5200

FIG. 1- FORWARD CURRENT DERATING CURVE

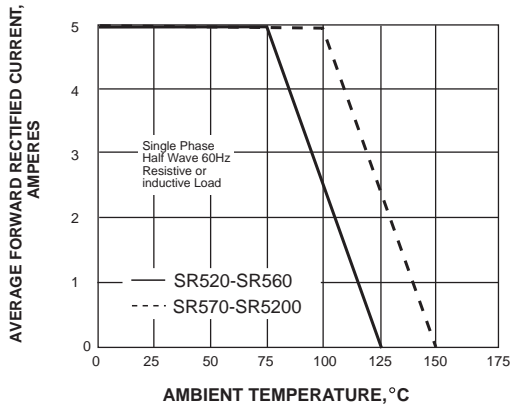


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

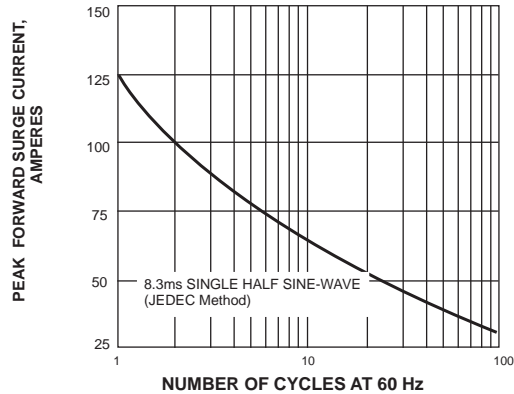


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

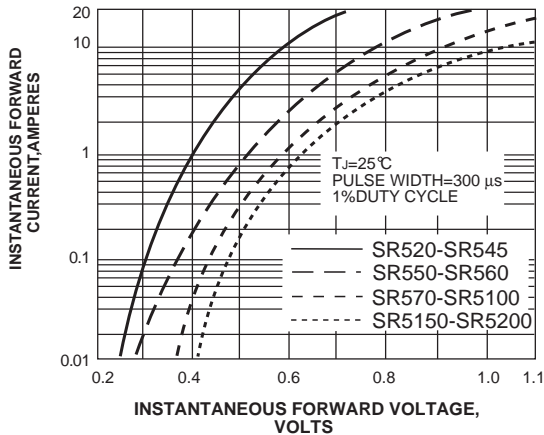


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

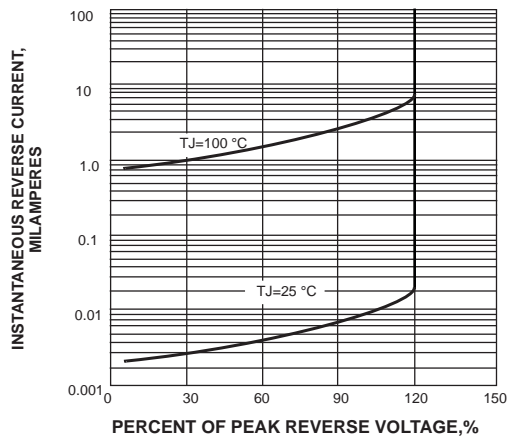


FIG. 5-TYPICAL JUNCTION CAPACITANCE

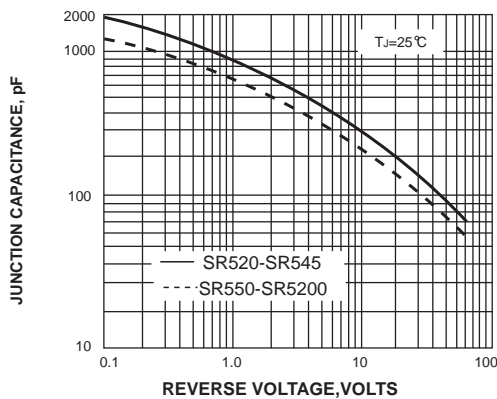


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

