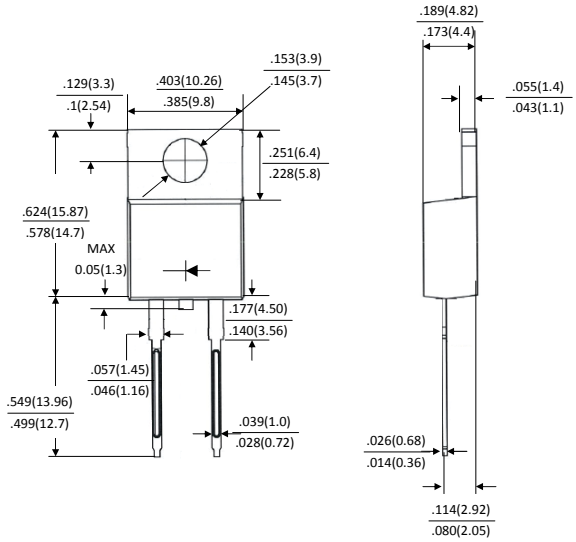
SR820S thru SR8200S

Schottky Barrier Rectifiers



TO-220AC

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	**Remark**
SR8xxS	General
SR8xxS-H	Halogen Free
SR8xxS-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	8A
V_{RRM}	20~200V
I_{FSM}	125A
V_F	0.55V, 0.70V, 0.85V, 0.92V
T_J max	125°C , 150°C

Features

- Guardring for overvoltage protection
- Very small conduction losses
- Low forward voltage drop
- Component in accordance to RoHS 2002/95/EC

Mechanical Date

- Cases: TO-220AC
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.899 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SR8 20S	SR8 30S	SR8 40S	SR8 45S	SR8 50S	SR8 60S	SR8 80S	SR8 100S	SR8 150S	SR8 200S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	31.5	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	V
Maximum average forward rectified current	I_F	8.0										A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125.0										A
Maximum Instantaneous Forward Voltage IF=8A @ 25°C	V_F	0.55				0.70		0.85		0.92		V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 30						0.2 10				mA
Typical Junction Capacitance(NOTE1)	C_j	420				300		260		230	200	pF
Typical Thermal Resistance	$R_{\theta JC}$	3										°C/W
Operating Temperature Range	T_J	-55 to +125						-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150										°C

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

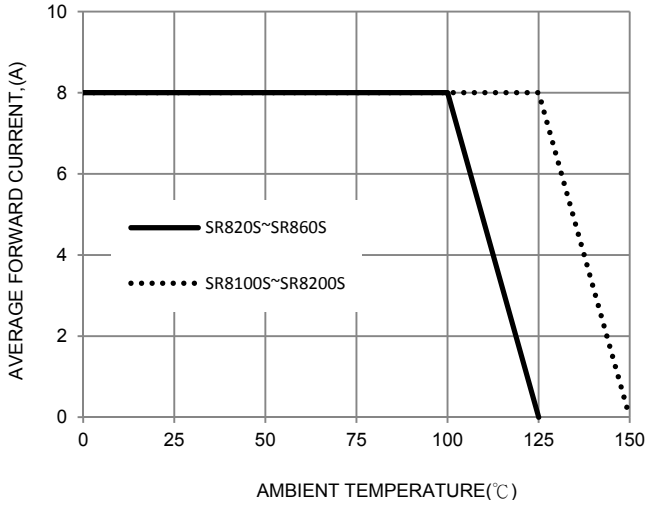

FIG. 2-TYPICAL FORWARD CHARACTERISTICS

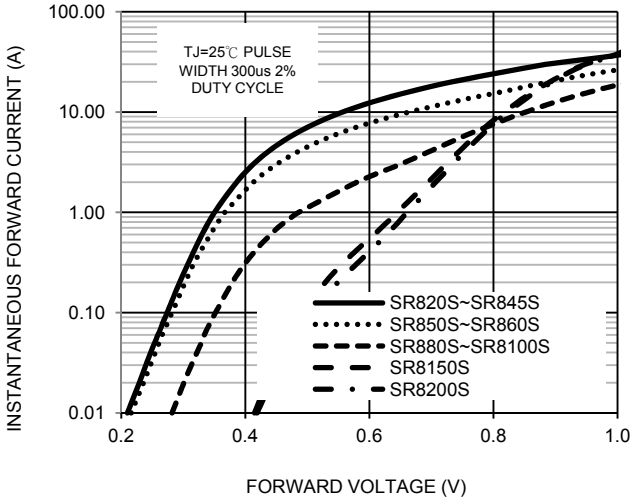

FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

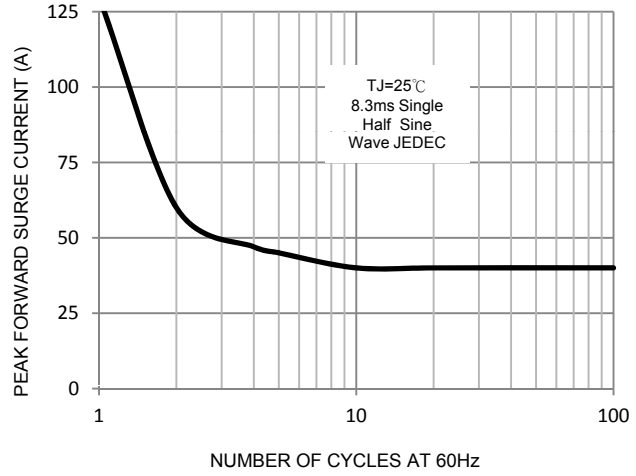

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

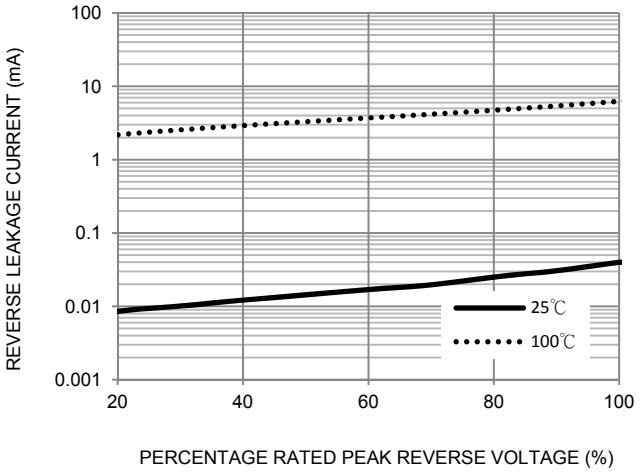

FIG. 5-TYPICAL JUNCTION CAPACITANCE