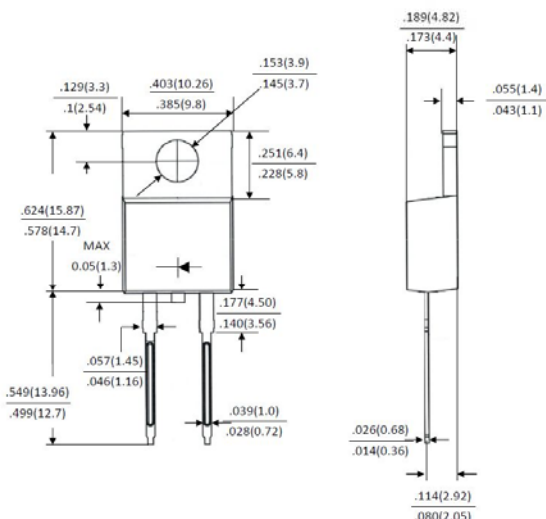


## Schottky Barrier Rectifiers



### TO-220AC

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
SR5xxS	General
SR5xxS-H	Halogen Free
SR5xxS-Q	Automotive

PRIMARY CHARACTERISTICS	
$I_F$	5A
$V_{RRM}$	20~200V
$I_{FSM}$	100A
$V_F$	0.55V, 0.70V, 0.85V, 0.87V, 0.90V
$T_J \text{ max}$	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
- AEC-Q101 qualified

### Mechanical Data

- 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	SR5 20S	SR5 30S	SR5 40S	SR5 50S	SR5 60S	SR5 80S	SR5 100S	SR5 150S	SR5 200S	UNIT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current	$I_F$	5.0									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100.0									A	
Maximum Instantaneous Forward Voltage $I_F=5A @ 25^\circ C$	$V_F$	0.55			0.70		0.85		0.87	0.90	V	
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	$I_R$	0.5 10				0.2 5.0					mA	
Typical Junction Capacitance(NOTE1)	$C_j$	320			300		200		180	120	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

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

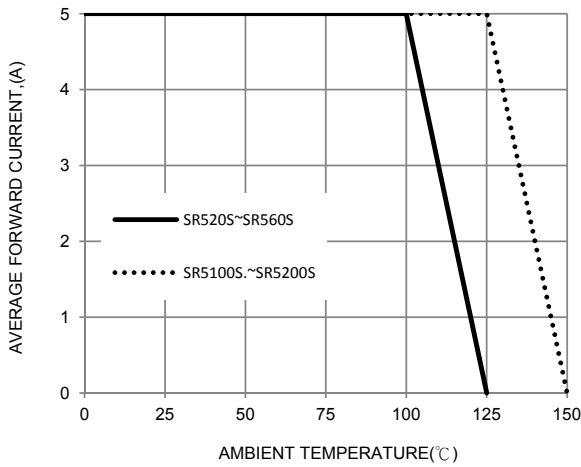


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

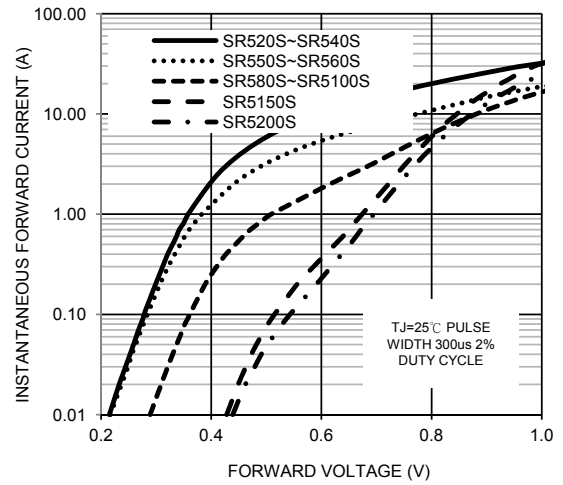


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

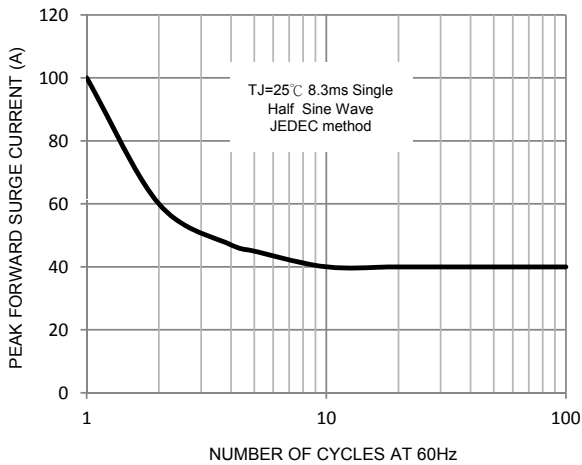


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

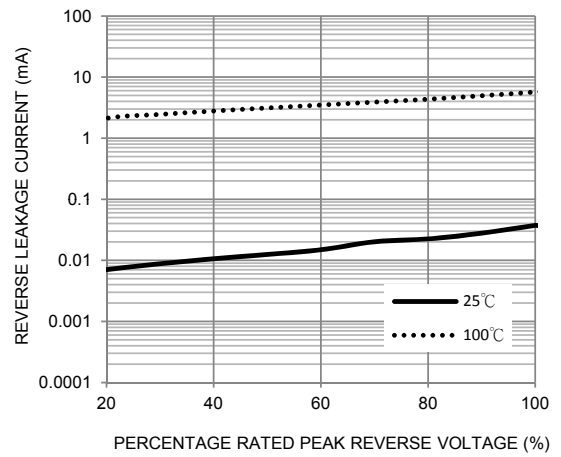


FIG. 5-TYPICAL JUNCTION CAPACITANCE

