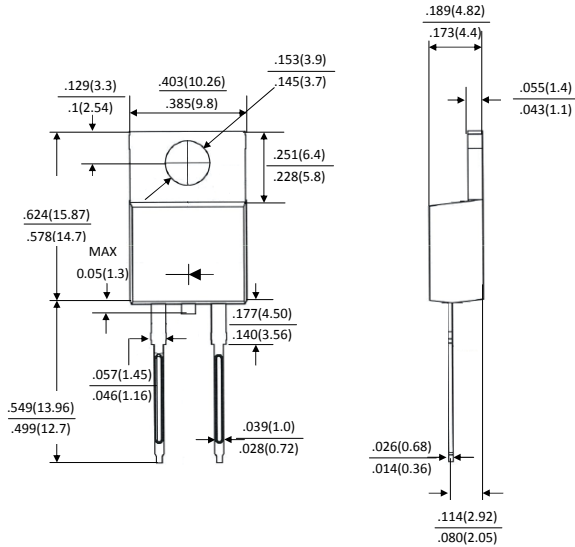




# SR1020S thru SR10200S



## Schottky Barrier Rectifiers



### TO-220AC

Dimensions in inches and (millimeters)



#### Ordering Information

Part Number	Remark
SR10xxS	General
SR10xxS-H	Halogen Free
SR10xxS-Q	Automotive

#### PRIMARY CHARACTERISTICS

$I_F$	10A
$V_{RRM}$	20~200V
$I_{FSM}$	150A
$V_F$	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
- 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	SR10 20S	SR10 30S	SR10 40S	SR10 50S	SR10 60S	SR10 80S	SR10 100S	SR10 150S	SR10 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	$I_F$	10.0									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0									A	
Maximum Instantaneous Forward Voltage $I_F=10A @ 25^\circ C$	$V_F$	0.55			0.70		0.85		0.92		V	
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	$I_R$	0.5 30					0.2 10					mA
Typical Junction Capacitance(NOTE1)	$C_j$	550			600		260		300 190		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



## Schottky Barrier Rectifiers

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

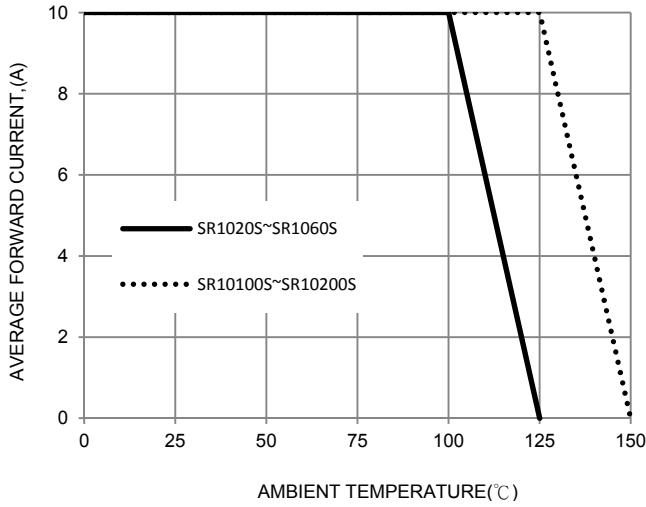


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

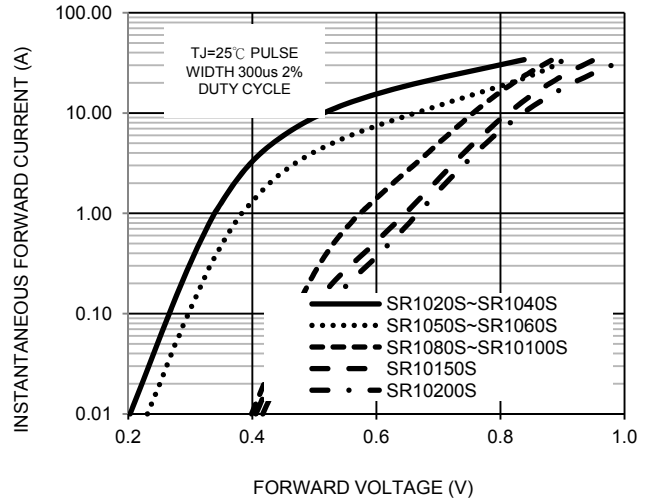


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

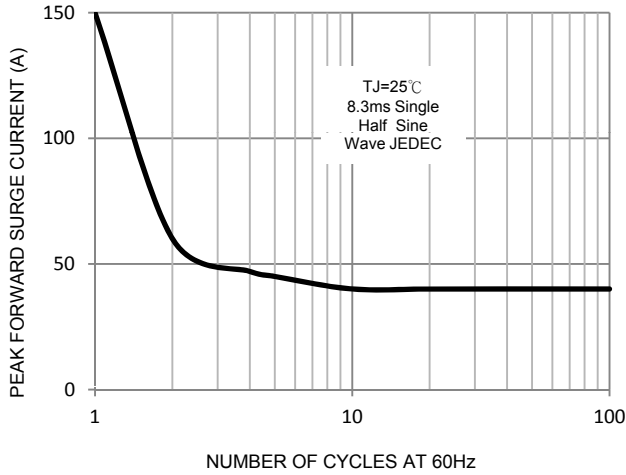


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

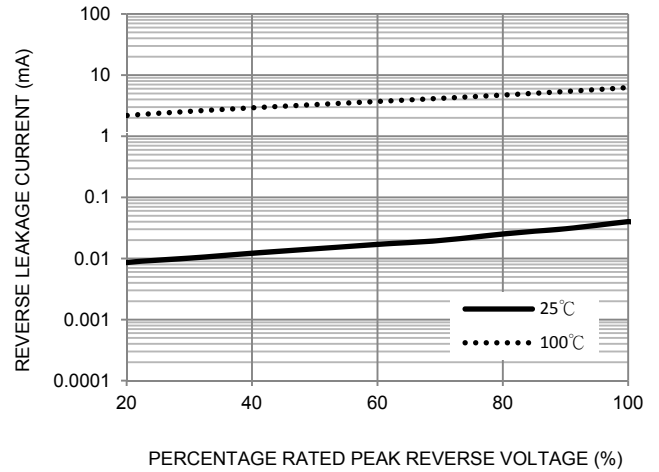


FIG. 5-TYPICAL JUNCTION CAPACITANCE

