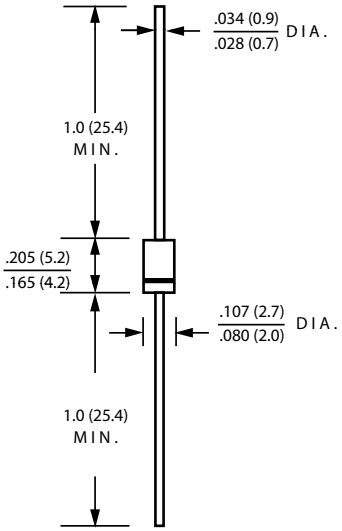
SR120 thru SR1200

Schottky Barrier Rectifiers



DO-41

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	**Remark**
SR1xx	General
SR1xx-H	Halogen Free
SR1xx-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	1A
V_{RRM}	20~200V
I_{FSM}	30A
V_F	0.50V, 0.70V, 0.85V, 0.87V, 0.90V
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 Date

- Cases: DO-41
- 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: 0.318 grams (approximate)

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

PARAMETER	SYMBOL	SR 120	SR 130	SR 140	SR 150	SR 160	SR 180	SR 1100	SR 1150	SR 1200	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	1.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0									A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V_F	0.5			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 10					0.2 2.0				mA
Typical Junction Capacitance(NOTE1)	C_j	90	70		60		50		35		pF
Typical Thermal Resistance	$R_{\theta Ja}$	70									°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

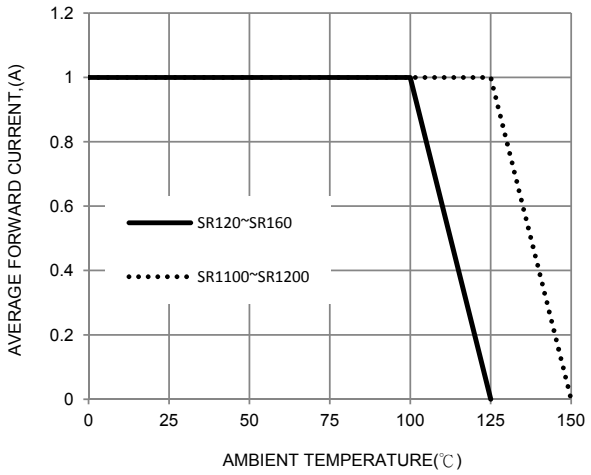

FIG. 2-TYPICAL FORWARD CHARACTERISTICS

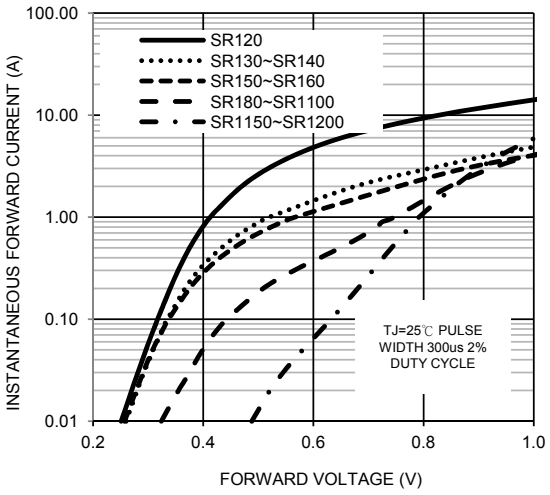

FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

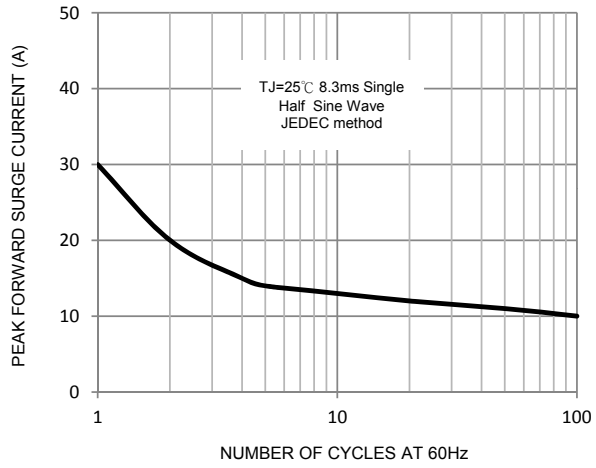

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

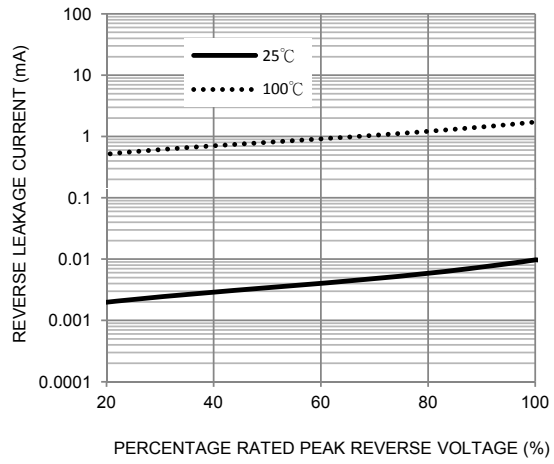

FIG. 5-TYPICAL JUNCTION CAPACITANCE