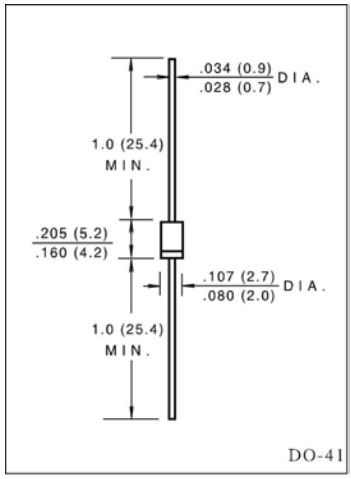
SCHOTTKY BARRIER RECTIFIER

SR102 - SR120

VOLTAGE RANGE - 20 to 200 V
CURRENT - 1 A

FEATURES

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed: 250/10 seconds, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denoted cathode end.
- Lead: Plastic axial lead, solderable per MIL - STD - 202E method 208C
- Mounting position : Any
- Weight: 0.012 ounce, 0.33 gram

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 derate current by 20%

		SYMBOLS	SR102	SR103	SR104	SR105	SR106	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at	T_L = 75C(SR102-104) T_L = 100C(SR105- 120)	$I_{(AV)}$	1.0					Amp
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I_{FSM}	40					Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	0.55			0.75		Volts
Maximum DC Reverse Current at rate DC blocking voltage (Note 1)	T_A = 25C	I_R	0.2					mA
	T_A 100C		10					
Typical Junction Capacitance (Note 2)		C_j	110					pF
Typical Thermal Resistance (Note 3)		$R_{\theta JA}$	50					C/W
Operating Temperature Range		T_J	(-65 to +150)					C
Storage Temperature Range		T_{STG}	(-65 to +150)					C

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SCHOTTKY BARRIER RECTIFIER

SR102 - SR120

VOLTAGE RANGE - 20 to 200 V
CURRENT - 1 A

		SYMBOLS	SR108	SR110	SR115	SR120	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	80	100	150	200	Volts
Maximum RMS Voltage		V_{RMS}	57	71	105	140	Volts
Maximum DC Blocking Voltage		V_{DC}	80	100	150	200	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at	T_L = 75C(SR102-104) T_L = 100C(SR105- 120)	$I_{(AV)}$	1.0				Amp
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I_{FSM}	40				Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	0.85		0.9	0.95	Volts
Maximum DC Reverse Current at rate DC blocking voltage (Note 1)	T_A = 25C T_A 100C	I_R	0.2 10				mA
Typical Junction Capacitance (Note 2)		C_j	110				pF
Typical Thermal Resistance (Note 3)		$R_{\theta JA}$	50				C/W
Operating Temperature Range		T_J	(-65 to +150)				C
Storage Temperature Range		T_{STG}	(-65 to +150)				C

NOTES:

1 Pulse test: 300 μs pulse width, 1% duty cycle.
2 Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 1.5" x 1.5" (38 X 38mm) copper pads.

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SCHOTTKY BARRIER RECTIFIER

SR102 - SR108

VOLTAGE RANGE - 20 to 80 V
CURRENT - 1 A

RATINGS AND CHARACTERISTIC CURVES SR102 - SR120

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

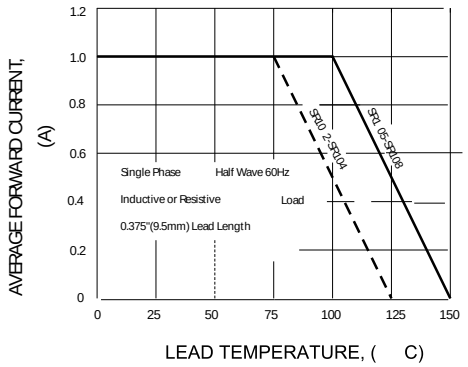

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

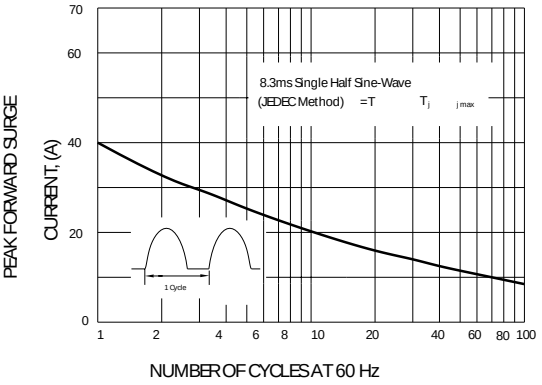

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

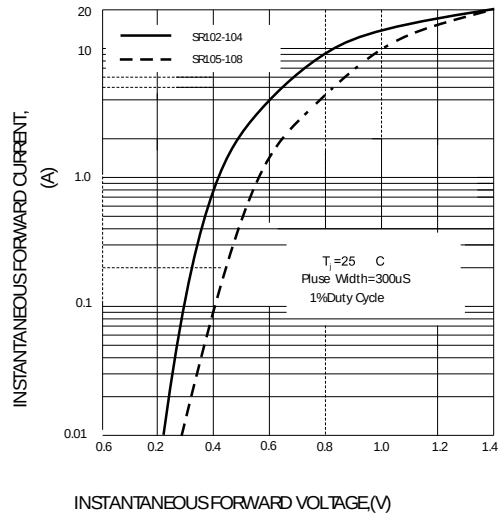

FIG.4-TYPICAL REVERSE CHARACTERISTICS

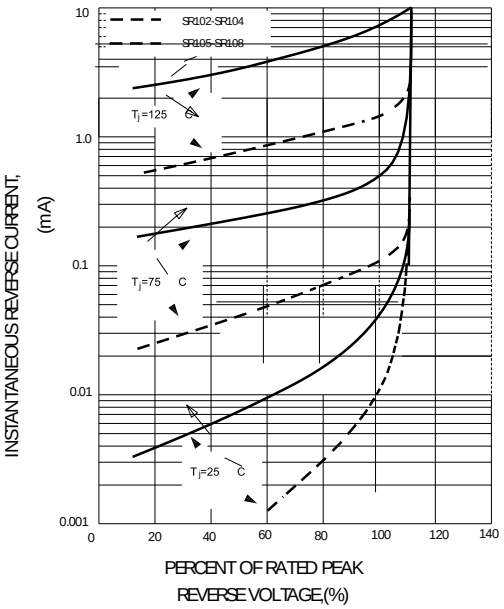

FIG.5-TYPICAL JUNCTION CAPACITANCE

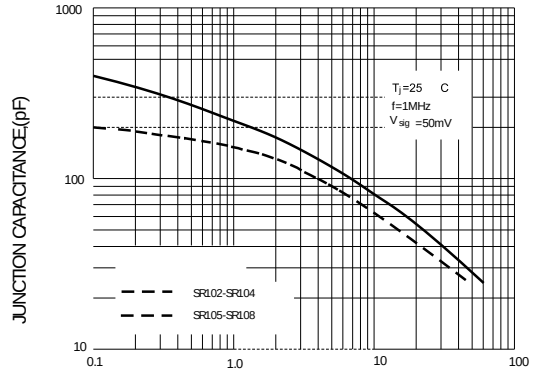

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE