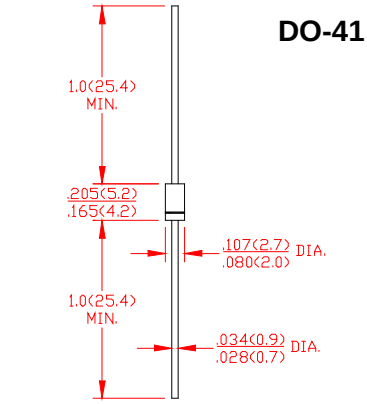
MASTER INSTRUMENT CORPORATION

SR120 THRU SR110

VOLTAGE RANGE **20 to 100 Volts**
Forward Current **1.0 Amperes**

FEATURES

- Fast switching
- Low forward voltage, high current capability.
- Low power loss high efficiency
- High current surge capability
- Fast switching for high efficiency
- High temperature soldering guaranteed: 250 °C/10 second, at terminals



MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: UL94v-0 rate flame retardant
- Polarity: Color band denotes cathode end.
- Lead Plated 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	SR120	SR130	SR140	SR150	SR160	SR180	SR190	SR110	UNITS
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	57	63	70	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current, See Fig2		$I_{(AV)}$	1.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	40								Amps
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.0A		V_F	0.55			0.70		0.80	0.85		Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T_A=25 °C	I_R	1.0								MAmps
	T_A=100 °C		10								
Typical Junction Capacitance (Note 2)		C_J	110								pF
Typical Thermal Resistance (Note 3)		$R_{\theta JA}$	50								°C/W
Operating and Storage Temperature Range		T_J	-65 to +125			-65 to +150					°C
Storage Temperature Range		T_{STG}	-65 to +150								°C

NOTES:
1. Pulse test: 300 us pulse width 1% duty cycle
2. Measured at 1.0 MHz 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 lengh with 1.5"X1.5"(38 X38mm) copper pads.

Schottky Barrier Rectifiers **SR102 THRU SR110(MIC PN)** **SR120 THRU SR1100(CUSTOMER PN)**	**VOLTAGE RANGE** **20 to 100 Volts** **Forward Current** **1.0 Amperes**

SR120 THRU SR110

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RATINGS AND CHARACTERISTIC CURVES SR120 THRU SR110

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

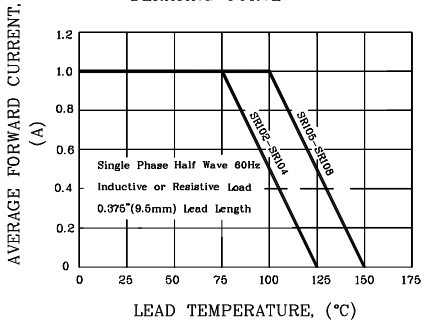

FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

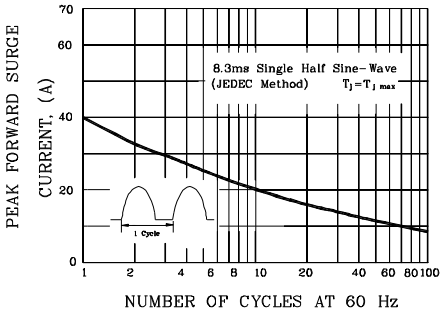

FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

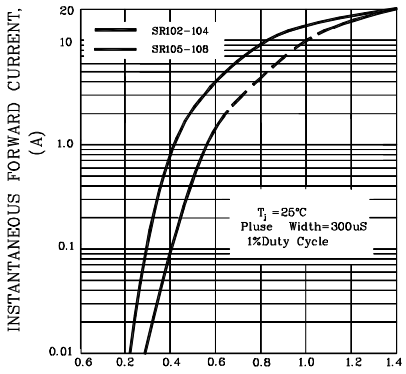

FIG.4–TYPICAL REVERSE CHARACTERISTICS

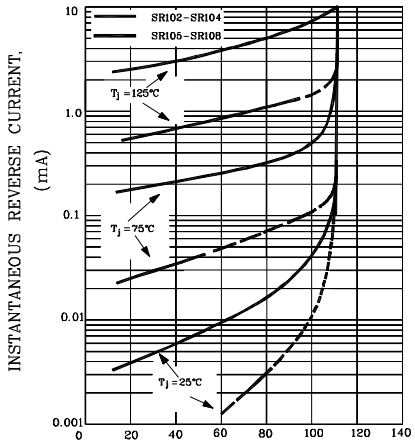

FIG.5–TYPICAL JUNCTION CAPACITANCE