

SR1020D1 THRU SR10200D1

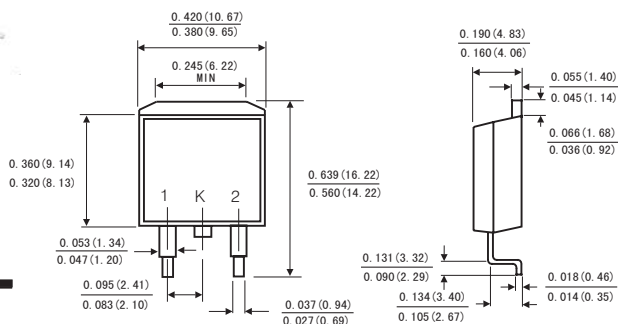
SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 20 to 200 Volts
Forward Current - 10.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2011/65/EU



TO-263 D2PAK



MECHANICAL DATA

- Case: JEDEC TO-263 molded plastic body
- Terminals: Solderable per MIL-STD-202,method 208
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SR 1020D1	SR 1030D1	SR 1045D1	SR 1060D1	SR 10100D1	SR 10150D1	SR 10200D1	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	45	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	32	42	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	45	60	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	5.0							Amps
	Total device	10.0							
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A per leg(Notes 1)	V_F	0.60		0.75		0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	$T_a=25^{\circ}C$	200			50				μA
	$T_a=100^{\circ}C$	5			-				mA
	$T_a=125^{\circ}C$	-			5				
Typical thermal resistance (Notes 2)	$R_{\theta JC}$	2.5							$^{\circ}C/W$
Operating junction temperature range	T_J	-65 to +150							$^{\circ}C$
Storage temperature range	T_{STG}	-65 to +150							$^{\circ}C$

- Notes:** 1.Pulse test: 300 μ s pulse width,1% duty cycle
2. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SR1020D1 THRU SR10200D1

FIG.1-FORWARD CURRENT DERATING CURVE

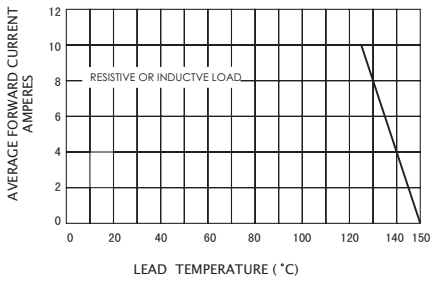


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

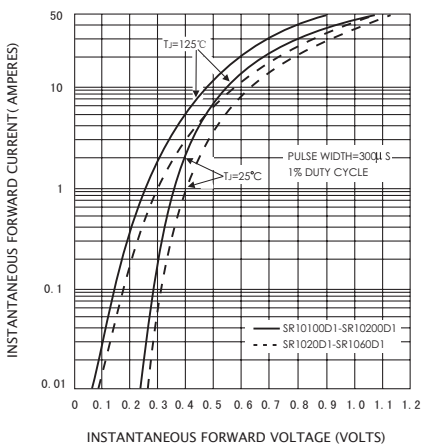


FIG.5-TYPICAL JUNCTION CAPACITANCE

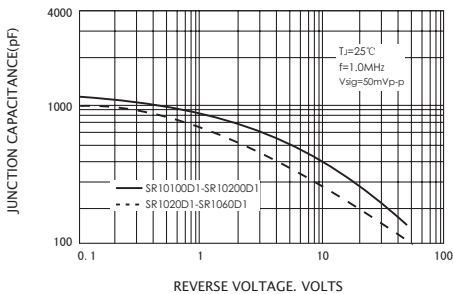


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

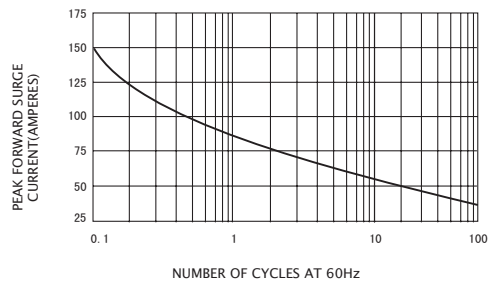


FIG.4-TYPICAL REVERSE CHARACTERISTICS

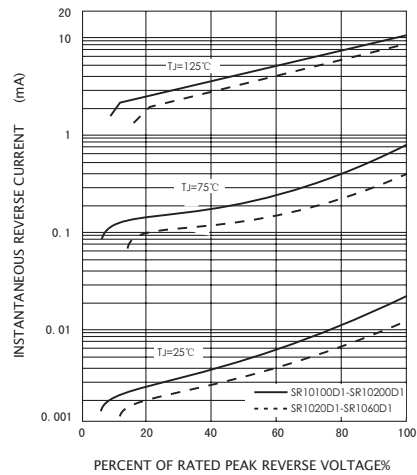


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

