SEMICONDUCTOR

SR2545D1

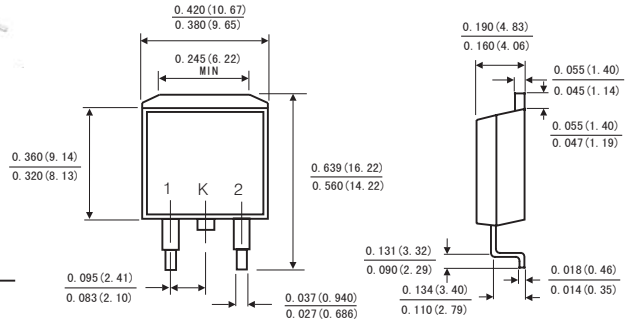
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 Volts
Forward Current - 25Amperes

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℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2011/65/EU

TO-263AB
D2PAK



Dimensions in inches and (millimeters)

MECHANICAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SR2545D1	Units
Maximum repetitive peak reverse voltage	V_{RRM}	45	Volts
Maximum RMS voltage	V_{RMS}	32	Volts
Maximum DC blocking voltage	V_{DC}	45	Volts
Maximum average forward rectified current See Fig. 1	$I_{(AV)}$	25. 0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200. 0	Amps
Maximum instantaneous forward voltage at 12. 5 A per leg	V_F	0. 55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=25℃	I_R	250	μA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=100℃	I_R	50	mA
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3. 0	°C/W
Storage temperature range	T_{STG}	-65 to+200	°C
Operating junction temperature range at reduced reverse voltage V_R<=80%V_{RRM} V_R<=50%V_{RRM} in DC forward model	T_J	-65 to+150 -65 to+175 -65 to+200	°C

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

RATINGS AND CHARACTERISTIC CURVES SR2545D1

FIG.1-FORWARD CURRENT DERATING CURVE

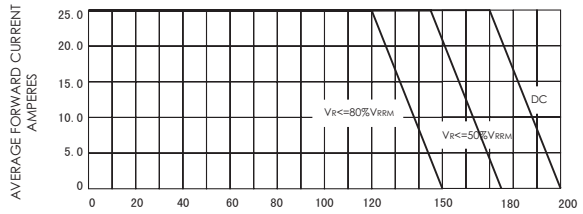


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

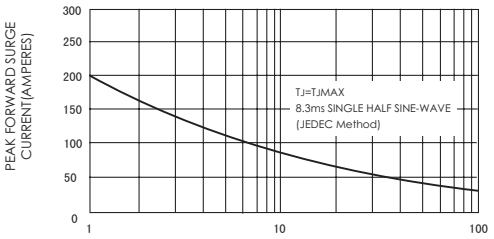


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

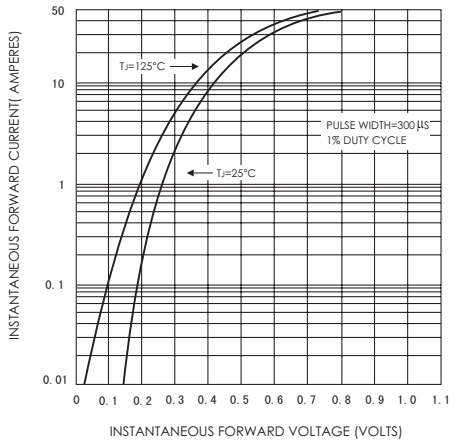


FIG.4-TYPICAL REVERSE CHARACTERISTICS

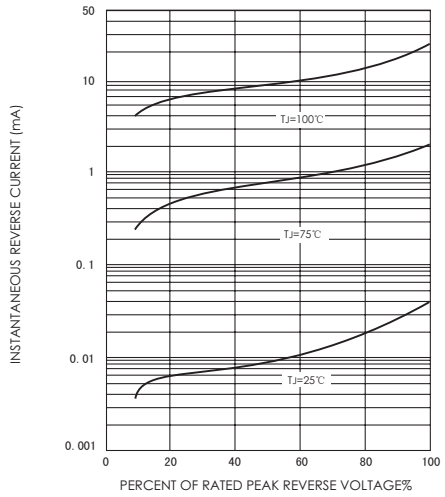


FIG.5-TYPICAL JUNCTION CAPACITANCE

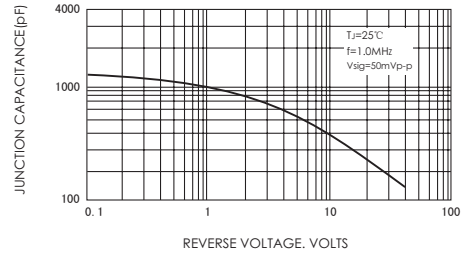


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE