SR2020 THRU SR20200

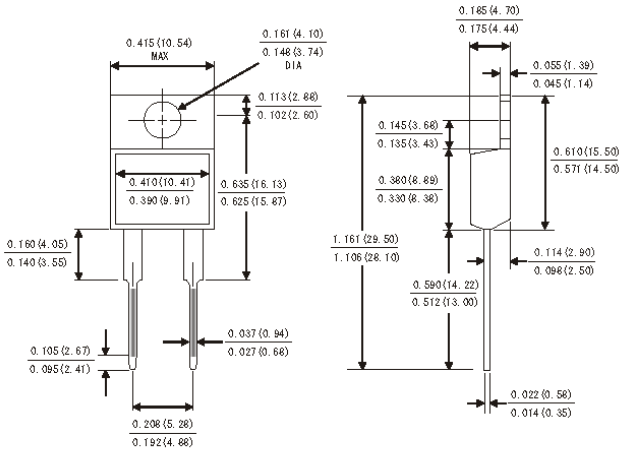
SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V
Forward Current - 20 A

Features

- Plastic package has UL Flammability Classification 94V-0
- Metal silicon, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- Guard ring for overvoltage protection
- High surge capability

TO-220AC



Dimensions in inches and (millimeters)

Mechanical Data

- **Case:** Molded plastic body, TO-220AC
- **Terminals:** lead solderable per MIL-STD-750, Method 2026 guaranteed
- **Polarity:** As marked
- **Mounting position:** Any

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%.

Parameter	Symbols	SR2020	SR2030	SR2040	SR2050	SR2060	SR2080	SR20A0	SR20150	SR20200	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	$I_{(AV)}$	20									A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200									A
Maximum Forward Voltage at 20 A	V_F	0.6			0.75		0.85		0.9	0.95	V
Maximum Reverse Current at Rated DC Blocking Voltage T_C = 25 °C	I_R	0.1									mA
T_C = 125 °C		30			50						
Typical Thermal Resistance [1]	$R_{\theta JC}$	3									°C/W
Operating Junction Temperature Range	T_j	- 65 to + 150									°C
Storage Temperature Range	T_{stg}	- 65 to + 150									°C

[1] Thermal Resistance from junction to case per leg.

FIG.1-FORWARD CURRENT DERATING CURVE

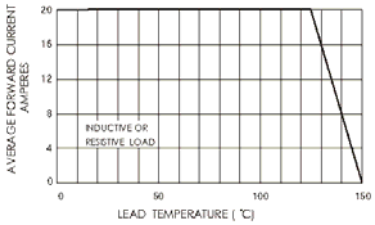


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

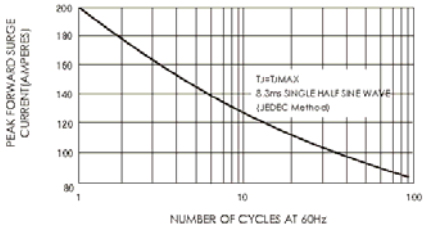


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

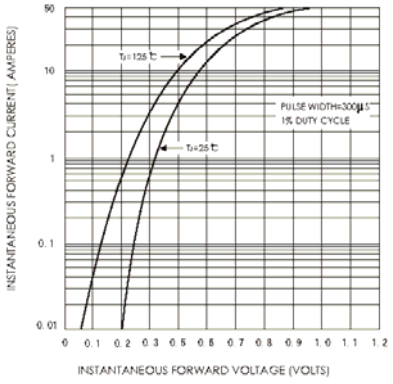


FIG.4-TYPICAL REVERSE CHARACTERISTICS

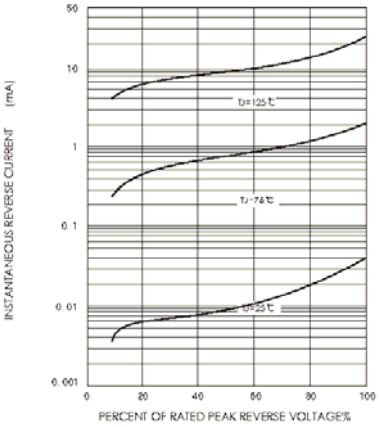


FIG.5-TYPICAL JUNCTION CAPACITANCE

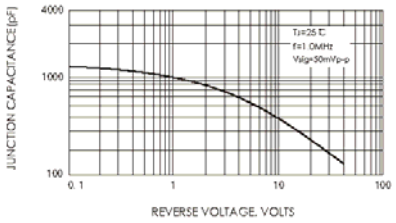


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE