



SR0540 THRU SR05200

Surface Mount Schottky Barrier Rectifiers

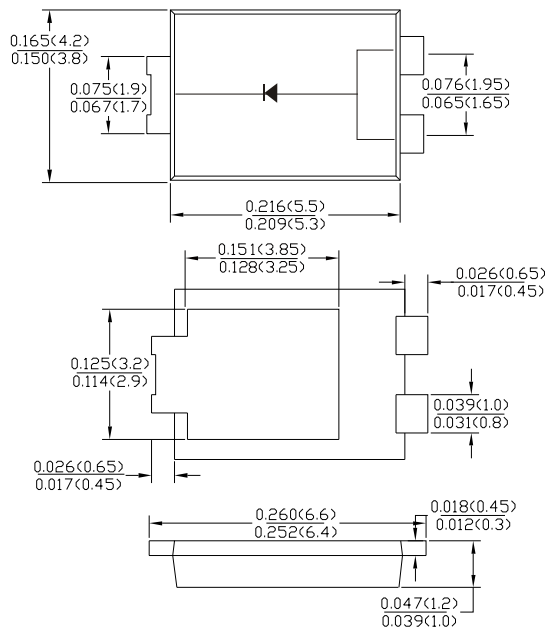
Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: TO-277, molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

TO-277B



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @T_A =25 °C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	SR 0540	SR 0545	SR 0550	SR 0560	SR 0580	SR 05100	SR 05150	SR 05200	Unit
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	40	45	50	60	80	100	150	200	V
DC blocking voltage	V _{DC}									
RMS Rectified Voltage	V _{R(RMS)}	28	32	35	42	56	70	105	140	V
Average Rectified Output Current (Note1)	I _O	5.0								A
Non-Repetitive Peak Forward Surge 8.3ms	I _{FSM}	80								A
Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)										
Forward Voltage Drop T _A =25 °C @IF=5A	V _{FM}	0.50		0.65		0.80		0.85	0.90	V
Peak Reverse Current T _A =25 °C At Rated DC Blocking Voltage T _A =100 °C	I _R	0.3 15								mA
Typical Thermal Resistance Junction to Ambient	R _{θJA} R _{θJL}	80 15								°C/W
Operating junction temperature range	T _J	-55 to +150								°C
storage temperature range	T _{STG}	-55 to +150								°C

Note: 1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb. 2oz. Copper, minimum recommend pad layout .18.8mm×14.4. Anode pad dimensions 5.6mm×14.4mm.



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 - Forward Current Derating Curve

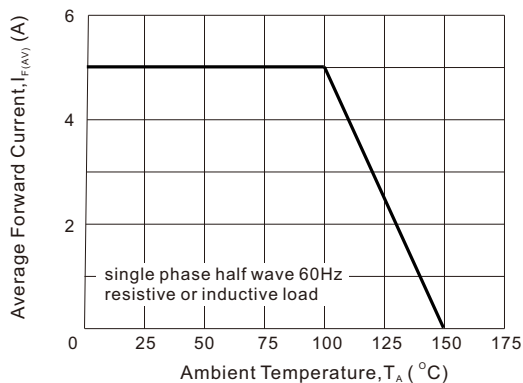


Fig2 : Instantaneous Forward Voltage

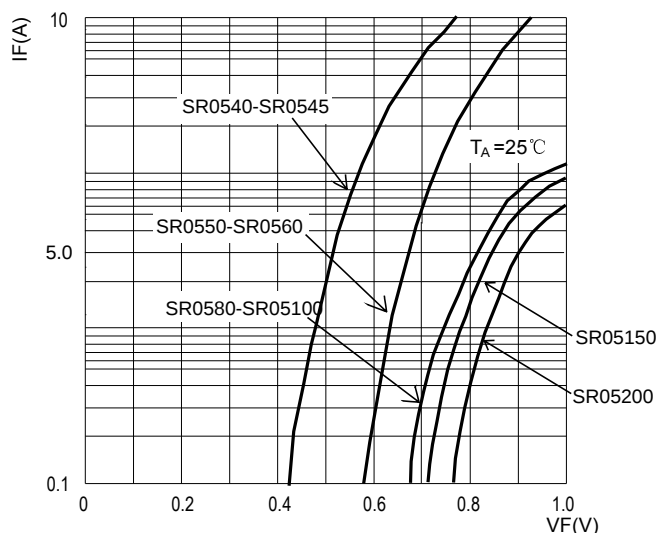


Fig3: Surge Forward Current Capability

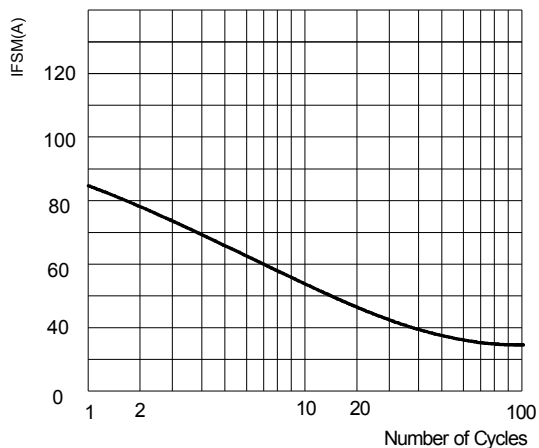


Fig4: Typical Reverse Characteristics

