

# SR2045

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 45 V

Forward Current - 20 A

### Features

- Low Power Loss / High Efficiency
- Low Forward Voltage Drop
- High Current Capability
- Highly Stable Oxide Passivated Junction
- Guard-Ring for stress Protection
- High Surge Capability

### Mechanical Data

**Case:** Molded plastic, D<sup>2</sup>PAK

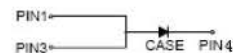
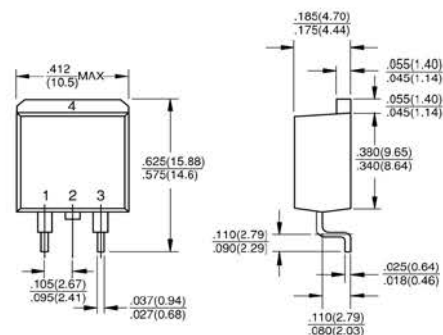
**Epoxy:** UL 94V-0 rate flame retardant

**Lead:** Axial leads, solderable per MIL-STD-202, method 208 guaranteed

**Polarity:** As marked

**Mounting position:** Any

D<sup>2</sup>PAK



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	V
Maximum RMS voltage	$V_{RMS}$	31.5	V
Maximum DC Blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current at $T_a = 25^\circ\text{C}$	$I_{F(AV)}$	20	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	300	A
Peak Forward Voltage at $I_F = 20\text{ A}$	$V_F$	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	0.2 50	mA
Typical Thermal Resistance	$R_{\theta JC}$	2	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_{op}$	- 40 to + 150	$^\circ\text{C}$
Junction Temperature in DC Forward Current Without Reverse Bias.	$T_J$	- 40 to + 200	$^\circ\text{C}$
Operating and Storage Temperature Range	$T_{stg}$	- 40 to + 175	$^\circ\text{C}$

TOP DYNAMIC

FIG.1-FORWARD CURRENT DERATING CURVE

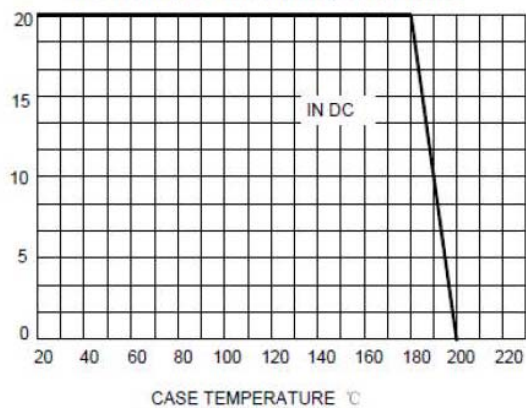


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

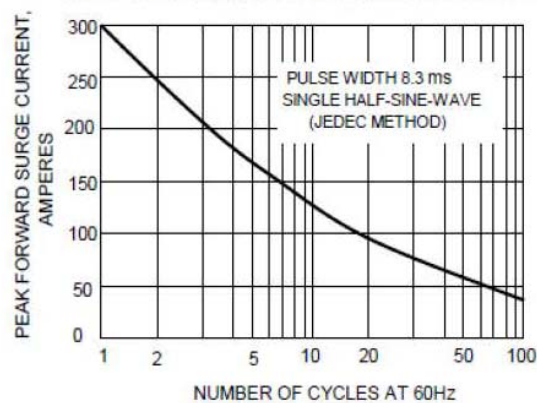


FIG.3-TYPICAL REVER CHARACTERISTICS

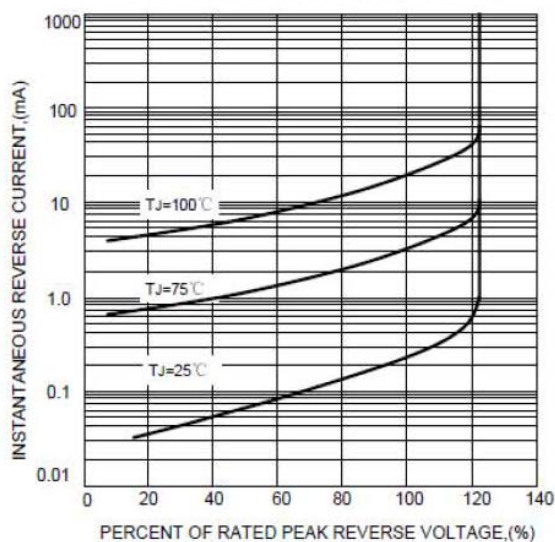


FIG.4-TYPICAL FORWARD CHARACTERISTICS

