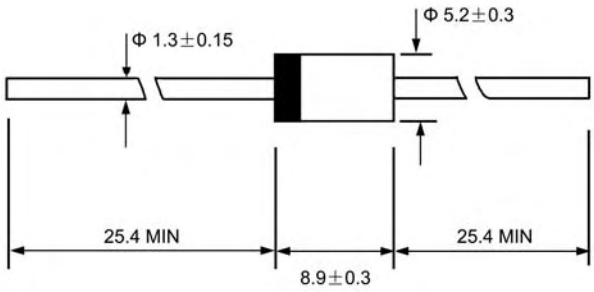
# RK49

Schottky Barrier Rectifiers

**VOLTAGE RANGE: 90 V**
**CURRENT: 3.5 A**

**DO - 27**




Dimensions in millimeters

## Features

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

## Mechanical Data

- ◇ Case:JEDEC DO--27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 unces,1.15 grams
- ◇ Mounting position: Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,50 Hz,resistive or inductive load. For capacitive load,derate by 20%.

| | | RK49 | UNITS |
|---|---|---|---|
| Maximum recurrent peak reverse voltage | $V_{RRM}$ | 90 | V |
| Maximum RMS voltage | $V_{RMS}$ | 63 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 90 | V |
| Maximum average forward ectified current 9.5mm lead length,@$T_A$=65 ℃ | $I_{F(AV)}$ | 3.5 | A |
| Peak forw ard surge current 10ms single half-sine-w ave superimposed on rated load | $I_{FSM}$ | 60 | A |
| Maximum instantaneous forward voltage ($I_F$=3.5A) (Note1) | $V_F$ | 0.81 | V |
| Maximum reverse current @$T_A$=25 ℃ | $I_R$ | 5.0 | mA |
| at rated DC blocking voltage @$T_A$=100 ℃ | | 35 | |
| Typical thermal resistance (Note2) | $R_{\theta JL}$ | 8.0 | ℃/W |
| Operating junction temperature range | $T_J$ | - 55 ---- + 150 | ℃ |
| Storage temperature range | $T_{STG}$ | - 55 ---- + 150 | ℃ |

Note: 1. Pulse test : 300μs pulse width,2% duty cycle.
2. Thermal resistance junction to lead.

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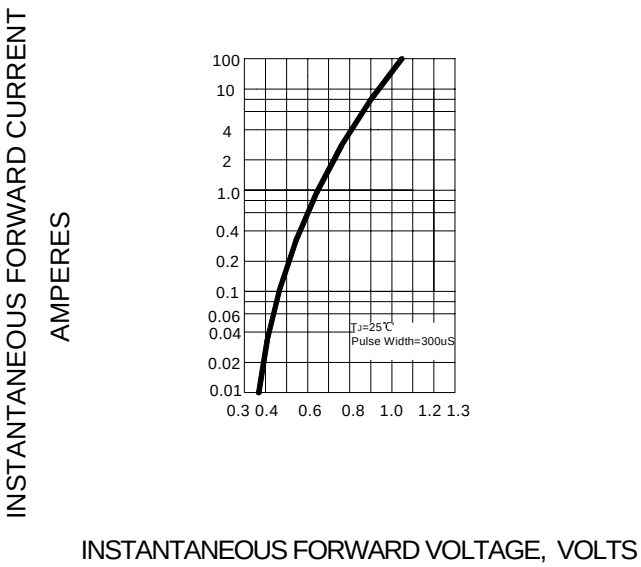
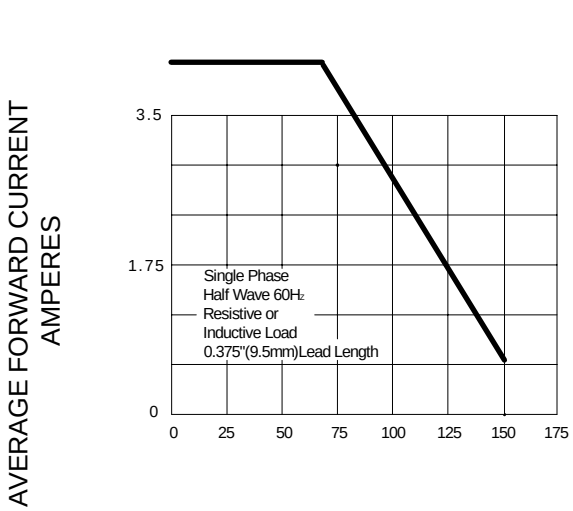
## Ratings AND Charactieristic Curves

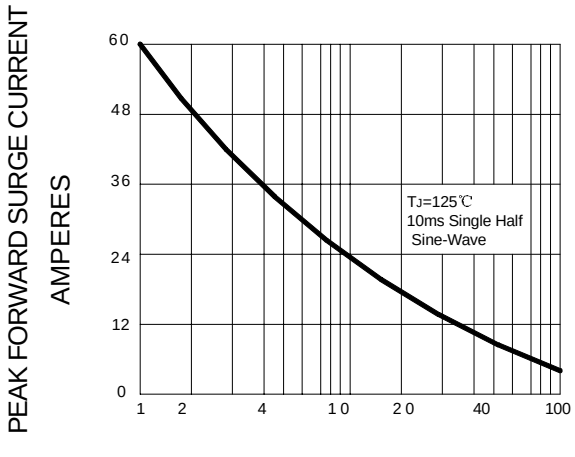
### FIG.1 -- TYPICAL FORWARD CHARACTERISTIC




### FIG.2– FORWARD DERATING CURVE




### FIG.3– PEAK FORWARD SURGE CURRENT




### FIG.4 – TYPICAL REVERSE CHARACTERISTICS