



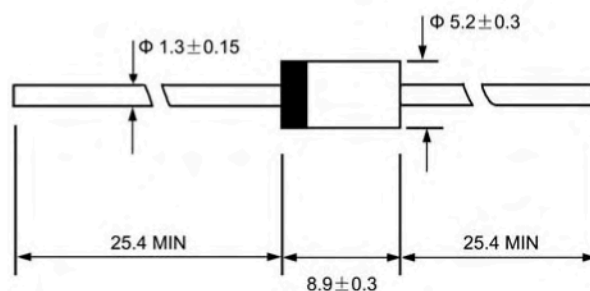
Features

- ◇ 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

DO - 27



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		RK46	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=65^\circ\text{C}$	$I_{F(AV)}$	3.5	A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load	I_{FSM}	70	A
Maximum instantaneous forward voltage ($I_F=3.5A$) (Note1)	V_F	0.62	V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	3.0 35	mA
Typical thermal resistance (Note2)	$R_{\theta JL}$	8.0	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	- 55 ---- + 150	$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ---- + 150	$^\circ\text{C}$

 Note: 1. Pulse test : 300 μ s pulse width, 2% duty cycle.

2. Thermal resistance junction to lead.

Ratings AND Characteristic Curves

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

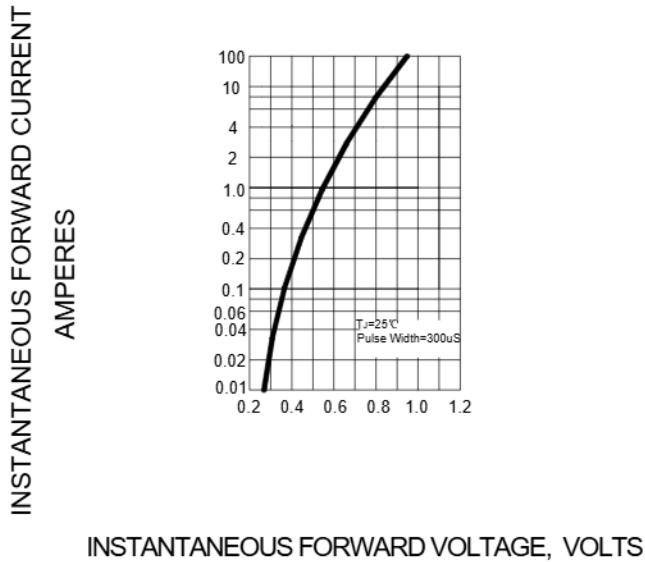


FIG.2– FORWARD DERATING CURVE

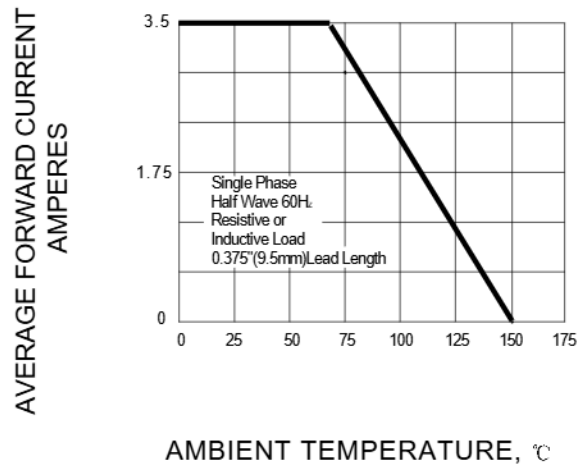


FIG.3– PEAK FORWARD SURGE CURRENT

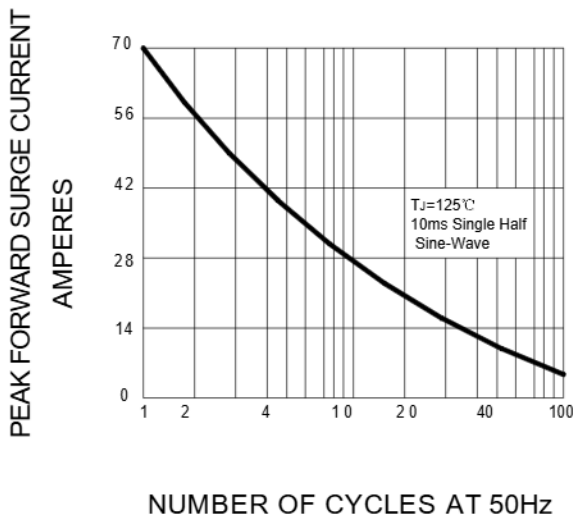


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

