



# 80SQ050

## 8.0AMPS. SILICON RECTIFIERS

**Voltage Range**  
**50 Volts**  
**Current**  
**8.0Amperes**

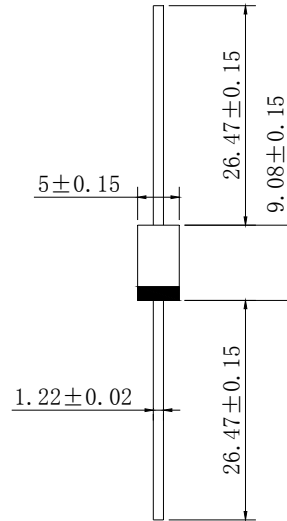
### Features

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carriers UL recognition 94V-0

### Mechanical Data

- Cases: JEDEC DO-201AD molded plastic
- Terminals: Solder plated
- Polarity: Color band denotes cathode
- Weight: 1.2 grams
- Mounting position: Any

## DO-201AD



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number		80SQ050	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	V
Maximum Average Forward Rectified Current @ T <sub>a</sub> =75°C	I <sub>F(AV)</sub>	8.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	200	A
Maximum I Forward Voltage at 8A DC	V <sub>F</sub>	0.55	V
Maximum DC Reverse Current @ T <sub>j</sub> =25°C	I <sub>R</sub>	0.20	mA
At Rated DC Blocking Voltage @ T <sub>j</sub> =100°C		10.0	
Typical Thermal Resistance junction to ambient air	R <sub>θJA</sub>	14.0	°C/W
Typical Thermal Resistance junction to leads	R <sub>θJL</sub>	5.0	
Operating Temperature Range at reduced reverse voltage V <sub>R</sub> ≤ 80%V <sub>RRM</sub> In DC forward mode V <sub>R</sub> ≤ 50%V <sub>RRM</sub>	T <sub>J</sub>	-55 to +150 -55 to +180 -55 to +200	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	°C

NOTES:

# RATING AND CHARACTERISTIC CURVES

## 80SQ050



FIG. 1-RATED FORWARD CURRENT VS AMBIENT TEMPERATURE

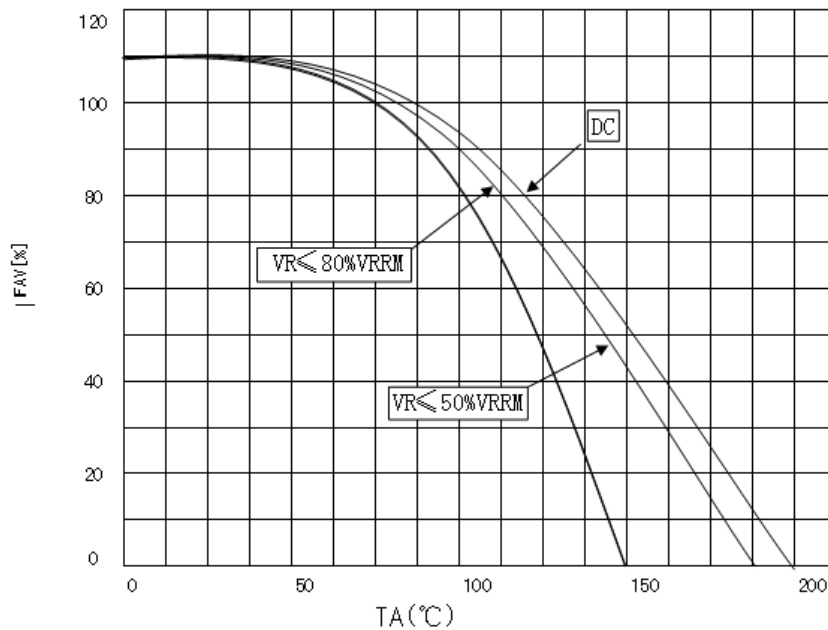


FIG. 2-TYPICAL INSTANTANEOVS FORWARD CHARACTERISTIC

