

# SD930 - SD945

**PRV : 30 - 45 Volts**  
**I<sub>o</sub> : 9.0 Amperes**

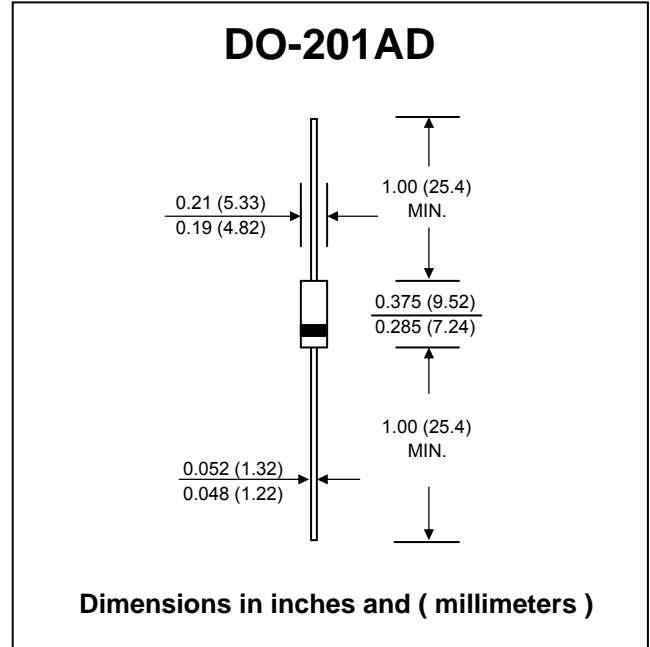
### FEATURES :

- \* High current capability
- \* Low forward voltage drop
- \* High surge capacity
- \* Low power loss, High efficiency
- \* Guard ring for transient protection
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.1 grams

# SCHOTTKY BARRIER RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

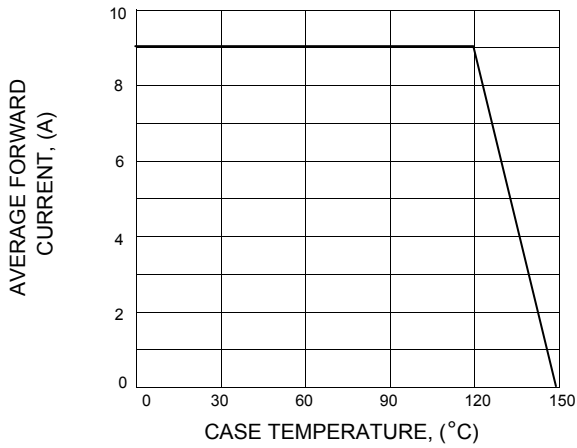
RATING	SYMBOL	SD930	SD940	SD945	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	30	40	45	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	45	V
Maximum Average Forward Current at T <sub>c</sub> = 120 °C	I <sub>F(AV)</sub>	9.0			A
Maximum Peak Forward Surge Current @ 10ms sine wave	I <sub>FSM</sub>	340			A
Maximum Forward Voltage @ I <sub>F</sub> = 9 A, (T <sub>J</sub> = 25 °C)	V <sub>F</sub>	0.485			V
(Note 1) @ I <sub>F</sub> = 9 A, (T <sub>J</sub> = 125 °C)		0.42			
Maximum Reverse Current at @ (T <sub>J</sub> = 25 °C)	I <sub>R</sub>	0.8			mA
Rated DC Blocking Voltage (Note 1) @ (T <sub>J</sub> = 125 °C)	I <sub>R(H)</sub>	70			mA
Maximum Junction Capacitance (Note 2)	C <sub>J</sub>	900			pF
Typical Thermal Resistance Junction to Lead (Note 3)	R <sub>θJL</sub>	8.0			K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 150			°C

### Notes :

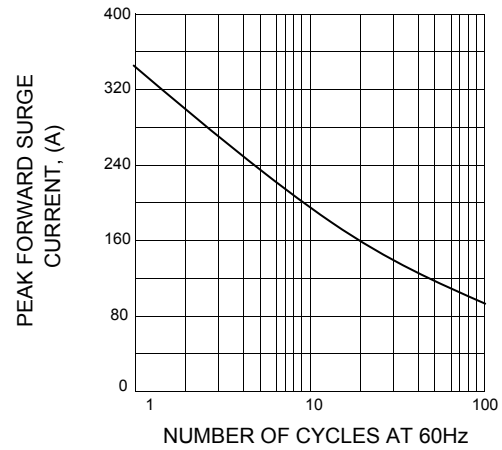
- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V.
- (3) Thermal resistance from junction to lead vertical PC board mounting, 9.5 mm lead length.

## RATING AND CHARACTERISTIC CURVES ( SD930 - SD945 )

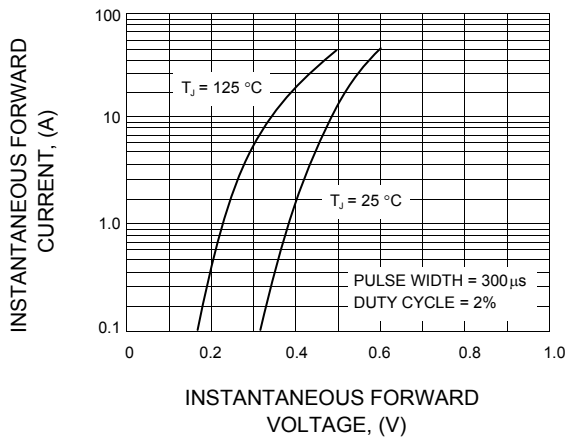
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

