

SD930 - SD945

PRV : 30 - 45 Volts
I_o : 9.0 Amperes

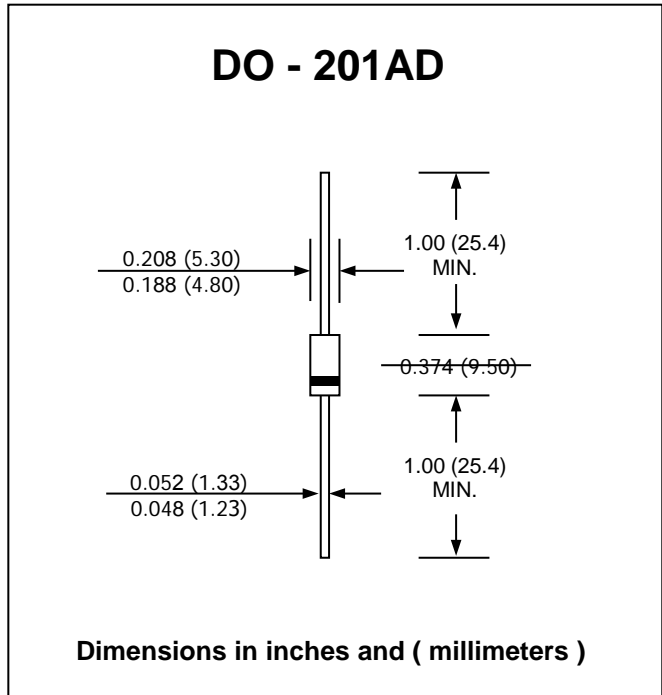
FEATURES :

- * 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-0 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 _{RRM}	30	40	45	V
Maximum RMS Voltage	V _{RMS}	30	40	45	V
Maximum DC Blocking Voltage	V _{DC}	30	40	45	V
Maximum Average Forward Current at T _c = 120 °C (Note 1)	I _{F(AV)}	9.0			A
Maximum Peak Forward Surge Current @ 10ms sine wave	I _{FSM}	340			A
Maximum Forward Voltage (Note 2) @ I _F = 9 A, (T _J = 25 °C) @ I _F = 9 A, (T _J = 125 °C)	V _F	0.5			V
		0.42			
Maximum Reverse Current at @ (T _J = 25 °C)	I _R	0.8			mA
Rated DC Blocking Voltage (Note 2) @ (T _J = 125 °C)	I _{R(H)}	70			mA
Maximum Junction Capacitance (Note 3)	C _J	900			pF
Typical Thermal Resistance Junction to Lead (Note 4)	R _{θJL}	8.0			K/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 150			°C

Notes :

- (1) Device mounted to heat sink with 1/8" lead length.
- (2) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 V.
- (4) 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

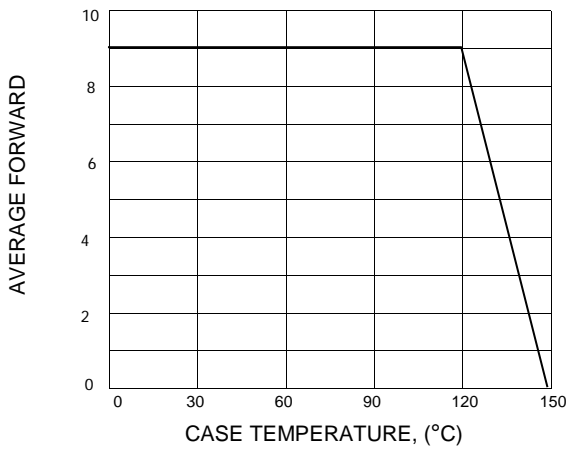


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

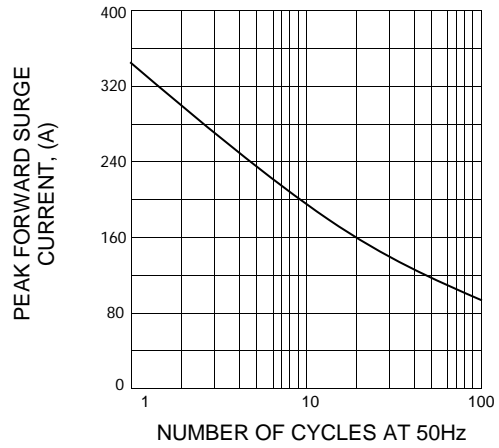


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

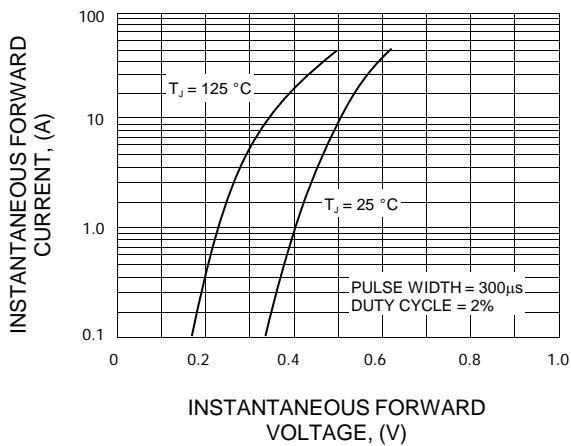


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

