

SD1045

PRV : 45 Volts
I_o : 10 Amperes

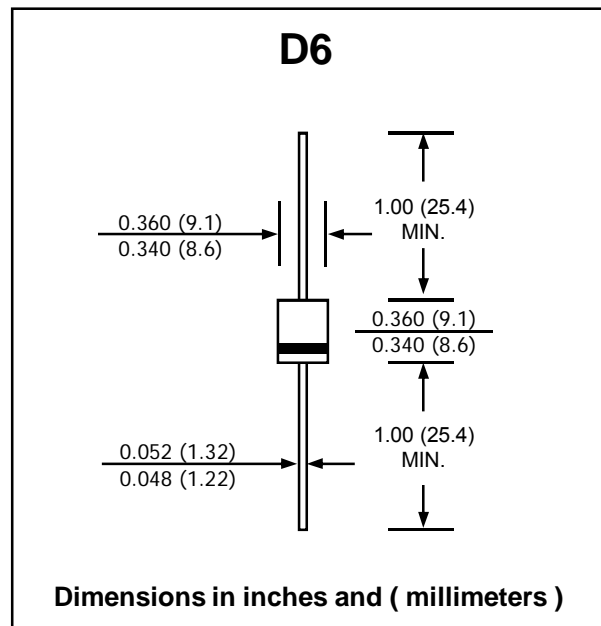
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low forward voltage drop
- * **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
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 1.1 grams

SCHOTTKY BARRIER RECTIFIER DIODE



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	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	32	V
Maximum DC Blocking Voltage	V _{DC}	45	V
Maximum Average Forward Current at T _L =100°C (Note 1)	I _{F(AV)}	10	A
Non-Repetitive Peak Forward Surge Current, 10ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	340	A
Maximum Forward Voltage at I _F = 10 A	V _F	0.55	V
Maximum Reverse Current at Ta = 25 °C	I _R	0.8	mA
Rated DC Blocking Voltage Ta = 125 °C	I _{R(H)}	70	mA
Typical Junction Capacitance (Note 2)	C _J	900	pF
Typical Thermal Resistance (Note 1)	R _{θJL}	8.0	°C/W
Operating Temperature Range	T _J	- 65 to + 150	°C
Storage Temperature Range	T _{STG}	- 65 to + 150	°C

Note : (1) Valid provided that leads are kept at ambient temperature at a distance of 9.5 mm from the case.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC



RATING AND CHARACTERISTIC CURVES (SD1045)

FIG.1 - FORWARD CURRENT DERATING CURVE

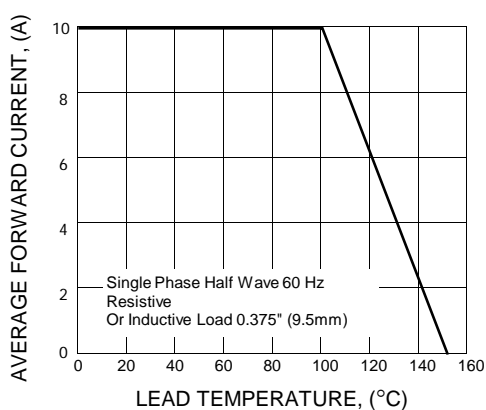


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

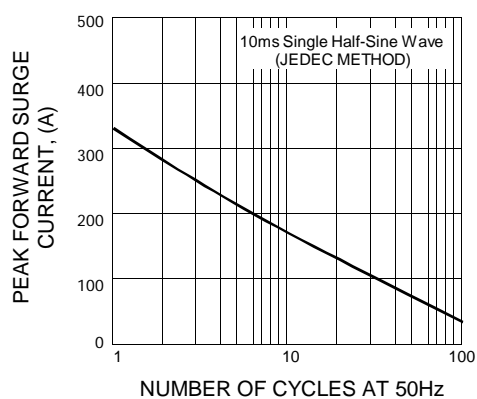


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

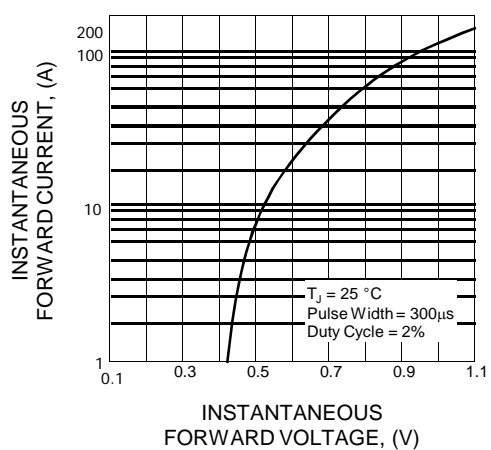


FIG.4 - TYPICAL JUNCTION CAPACITANCE

