

SD2045

PRV : 45 Volts
I_o : 20 Amperes

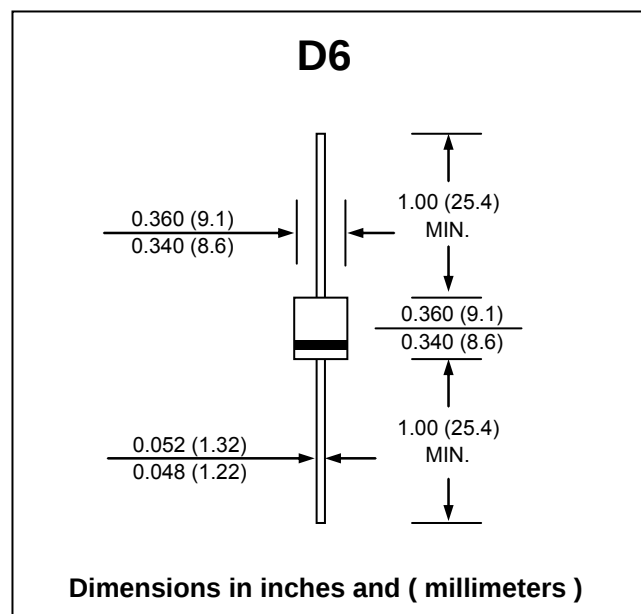
FEATURES :

- * 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 : Void-free molded plastic body
- * 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 : 2.1 grams

SCHOTTKY BARRIER RECTIFIER DIODE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specific.

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}	45	V
Maximum DC Blocking Voltage	V _{DC}	45	V
Maximum Average Forward Current at T _c = 25 °C	I _{F(AV)}	20	A
Maximum Peak Forward Surge Current @ 10ms sine wave	I _{FSM}	410	A
Maximum Instantaneous Forward Voltage at I _F = 20 A	V _F	0.55	V
Maximum Reverse Current at @ (T _J = 25 °C)	I _R	0.26	mA
Rated DC Blocking Voltage (Note 1) @ (T _J = 125 °C)	I _{R(H)}	70	mA
Maximum Junction Capacitance (Note 2)	C _J	900	pF
Typical Thermal Resistance Junction to Lead (Note 3)	R _{θJL}	8.0	K/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 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 (SD2045)

FIG.1 - FORWARD CURRENT DERATING CURVE

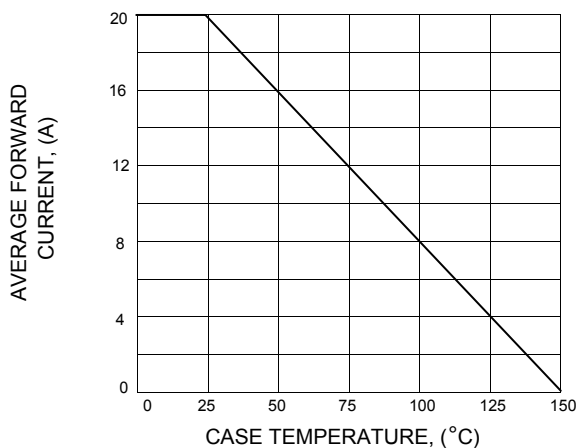


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

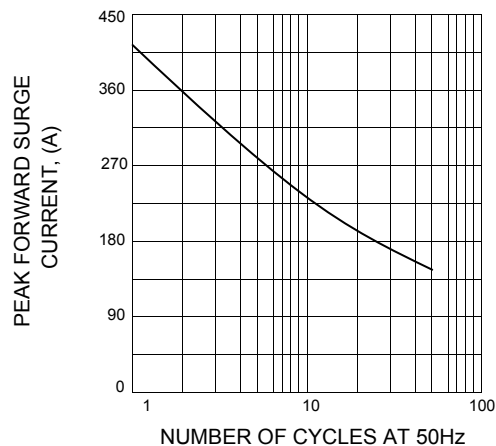


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

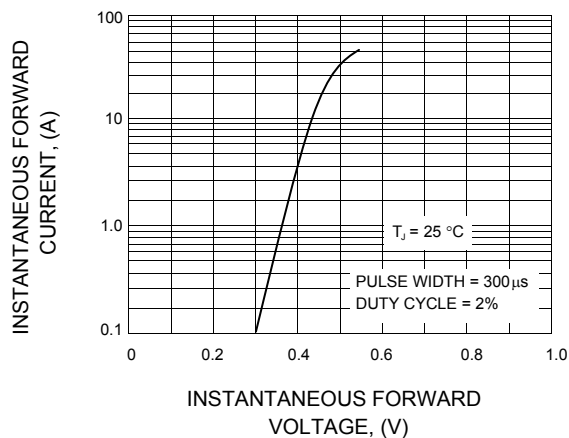


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

