

SD1545

PRV : 45 Volts
I_o : 15 Amperes

FEATURES :

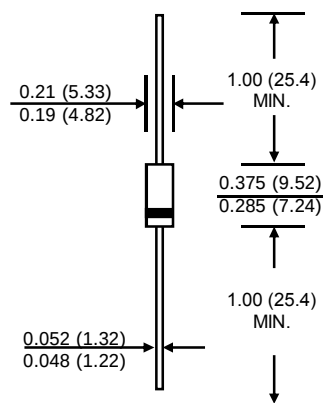
- * High current capability
- * Low forward voltage drop
- * High surge capacity
- * Low power loss, High efficiency
- * Guard ring for transient protection
- * **Pb / RoHS Free**

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 DIODE

DO-201AD



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 $T_c = 25^\circ C$	$I_{F(AV)}$	15	A
Maximum Peak Forward Surge Current @ 10ms sine wave	I_{FSM}	300	A
Maximum Instantaneous Forward Voltage at $I_F = 15 A$	V_F	0.54	V
Maximum Reverse Current at @ ($T_J = 25^\circ C$)	I_R	0.20	mA
Rated DC Blocking Voltage (Note 1) @ ($T_J = 125^\circ C$)	$I_{R(H)}$	70	mA
Maximum Junction Capacitance (Note 2)	C_J	900	pF
Typical Thermal Resistance Junction to Lead (Note 3)	$R_{\theta JL}$	8.0	K/W
Operating Junction Temperature Range at reduced reverse voltage $V_R \leq 80\% V_{RRM}$ in DC forward mode $V_R \leq 50\% V_{RRM}$	T_J	- 50 to + 150 ≤ 180 ≤ 200	°C
Storage Temperature Range	T_{STG}	- 50 to + 175	°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 (SD1545)

FIG.1 - FORWARD CURRENT DERATING CURVE

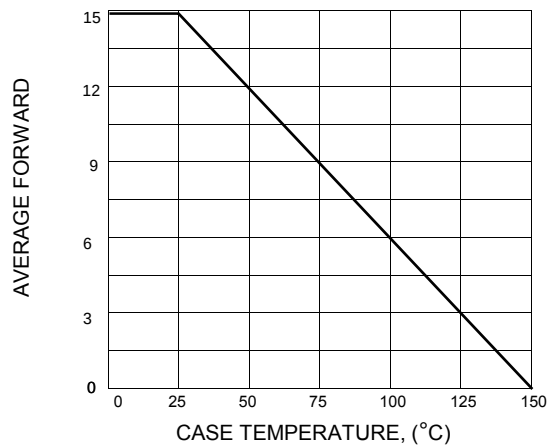


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

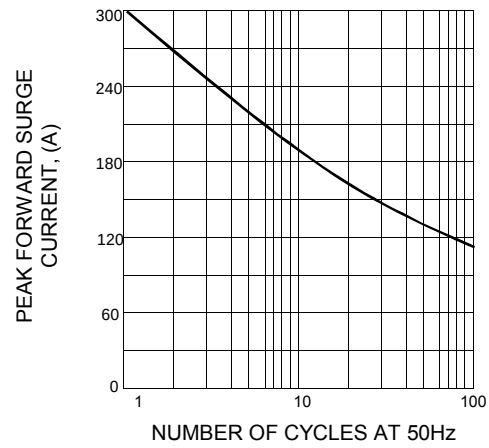


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

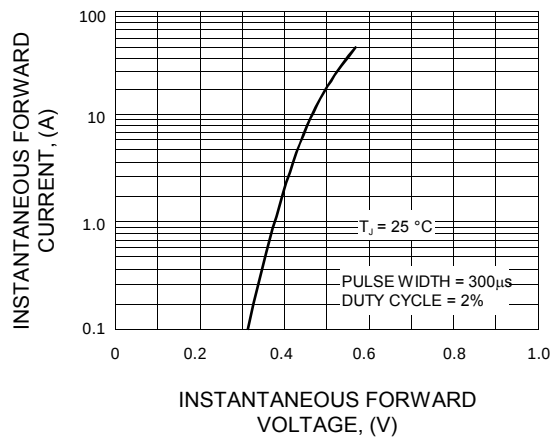


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

