

BYD67A

PRV : 300 Volts
Io : 1.2 Amperes

FEATURES :

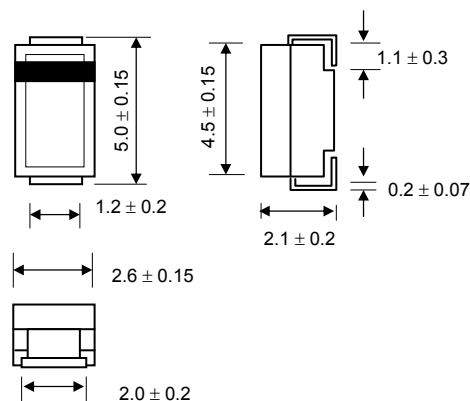
- * Glass passivated junction chip
- * High maximum operating temperature
- * Low leakage current
- * Excellent stability
- * Smallest surface mount rectifier outline
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.067 gram

RIPPLE BOCKING DIODE

SMA (DO-214AC)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	300	V
Maximum Continuous Reverse Voltage	V_R	300	V
Maximum Average Forward Current	$I_{F(AV)}$	1.2 ⁽¹⁾ 0.4 ⁽²⁾	A
Maximum Non-Repetitive Peak Forward Surge Current (Note 3)	I_{FSM}	5.0	A
Maximum Repetitive Peak Forward Current at $T_{tp} = 85\text{ °C}$	I_{FRM}	11	A
Maximum Forward Voltage at $I_F = 1.0\text{ A}$, $T_J = 25\text{ °C}$	V_F	2.3	V
Maximum Reverse Current at $V_R = V_{RRMmax}$ $T_J = 25\text{ °C}$ $T_J = 165\text{ °C}$	I_R	1.0	μA
	$I_{R(H)}$	100	μA
Maximum Reverse Recovery Time (Note 4)	T_{rr}	150	ns
Thermal Resistance from Junction to Tie-Point	$R_{th\ j-tp}$	30	K / W
Thermal Resistance from Junction to Ambient (Note 5)	$R_{th\ j-a}$	150	K / W
Junction Temperature Range	T_J	- 65 to + 175	°C
Storage Temperature Range	T_{STG}	- 65 to + 175	°C

Notes :

- (1) $T_{tp} = 85\text{ °C}$; see Fig. 1; averaged over any 20 ms period; see Fig. 2
- (2) $T_{amb} = 60\text{ °C}$; PCB mounting; see Fig. 3; averaged over any 20 ms period; see also Fig.2
- (3) $t = 10\text{ms}$ half sine wave; $T_J = T_{Jmax}$ prior to surge; $V_R = V_{RRMmax}$
- (4) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.
- (5) Device mounted on an epoxy-glass printed-circuit board, 1.5 mm thick; thickness of Cu-layer $\geq 40\text{ }\mu\text{m}$.

RATING AND CHARACTERISTIC CURVES (BYD67A)

FIG.1 - MAXIMUM PERMISSIBLE AVERAGE FORWARD CURRENT AS A FUNCTION OF TIE-POINT TEMPERATURE

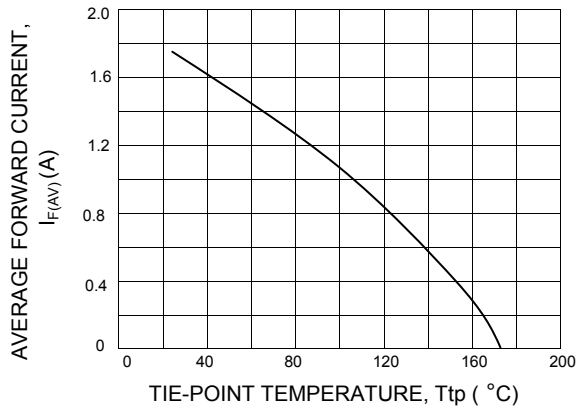


FIG.2 - MAXIMUM STEADY STATE POWER DISSIPATION AS A FUNCTION OF AVERAGE FORWARD CURRENT

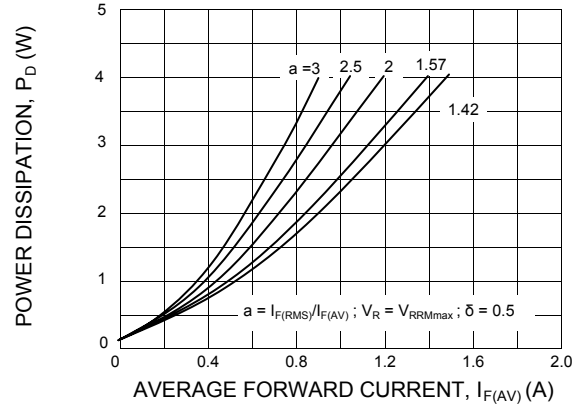


FIG.2 - MAXIMUM PERMISSIBLE AVERAGE FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE

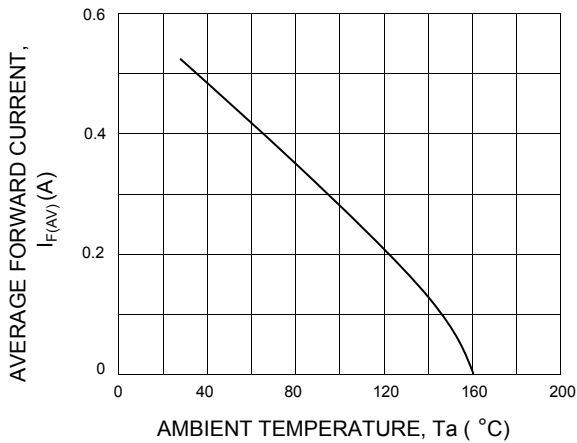


FIG.4 - FORWARD CURRENT AS FUNCTION OF FORWARD VOLTAGE

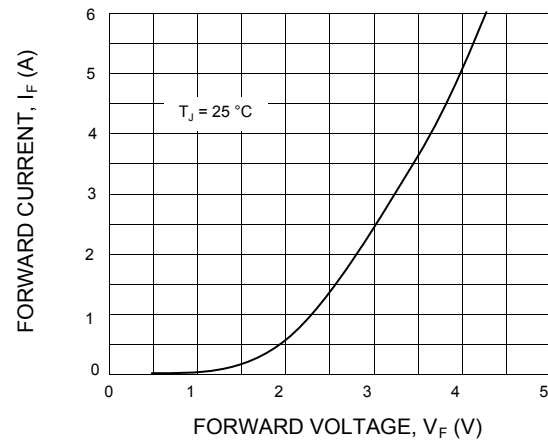


FIG.5 - REVERSE CURRENT AS FUNCTION OF JUNCTION TEMPERATURE; MAXIMUM VALUES

