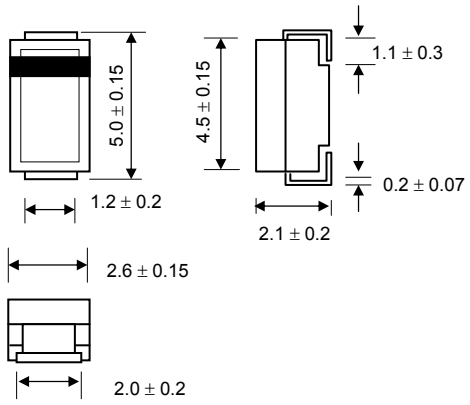
BYD67A

RIPPLE BOCKING DIODE

PRV : 300 Volts
Io : 1.2 Amperes

SMA (DO-214AC)



Dimensions in millimeters

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

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

Notes :

(1) Ttp = 85 °C; see Fig. 1; averaged over any 20 ms period; see Fig. 2

(2) Tamb = 60 °C; PCB mounting ; see Fig. 3; averaged over any 20 ms period; see also Fig.2

(3) t=10ms half sine wave; Tj = Tjmax prior to surge; $V_R = V_{RRMmax}$

(4) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

(5) Device mounted on an epoxy-glass printed-circuit board, 1.5 mm thick; thickness of Cu-layer ≥ 40 µm.

RATING AND CHARACTERISTIC CURVES (BYD67A)

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

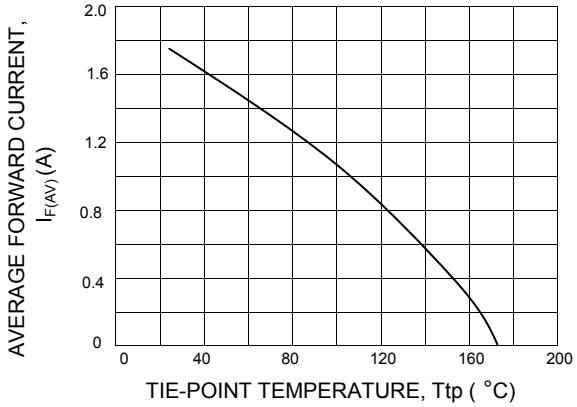


FIG.2 - MAXIMUM STEADY STATE POWER DISSIPATION AS A FUNCTION OF AVERAGE FORWARD CURRENT

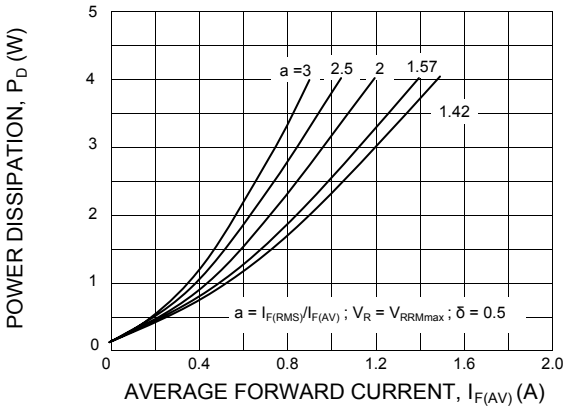


FIG.2 - MAXIMUM PERMISSIBLE AVERAGE FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE

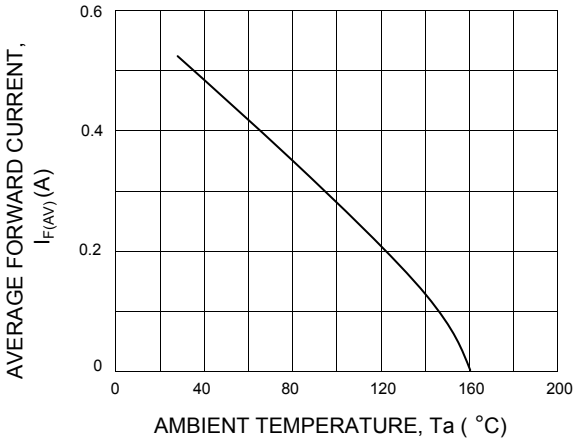


FIG.4 - FORWARD CURRENT AS FUNCTION OF FORWARD VOLTAGE

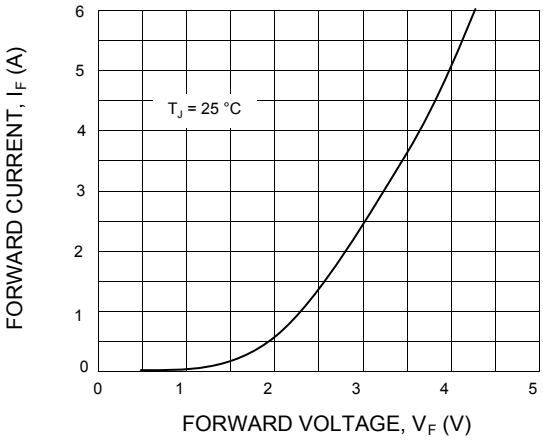


FIG.5 - REVERSE CURRENT AS FUNCTION OF JUNCTION TEMPERATURE; MAXIMUM VALUES