

# BYD67

## RIPPLE BOCKING DIODE

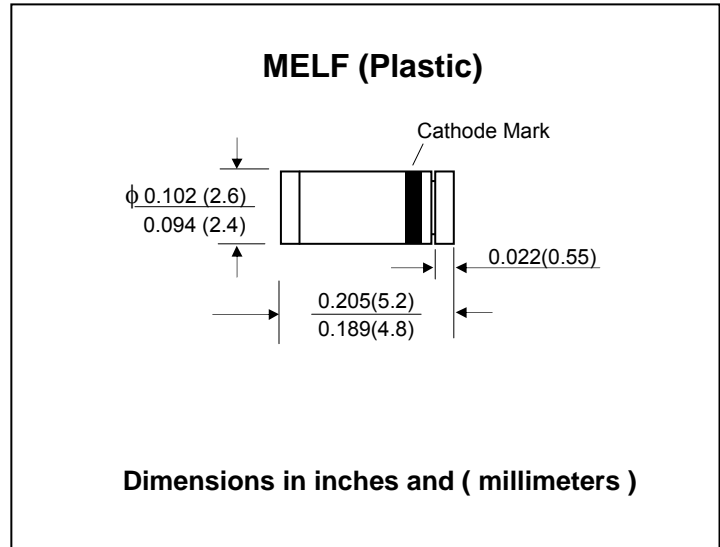
**PRV : 300 Volts**  
**Io : 1.2 Amperes**

### FEATURES :

- \* Glass passivated
- \* High maximum operating temperature
- \* Low leakage current
- \* Excellent stability
- \* Guaranteed avalanche energy absorption capability
- \* Smallest surface mount rectifier outline
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Terminals : Plated Terminals, solderable per MIL-STD-750 Method 2026
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.116 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

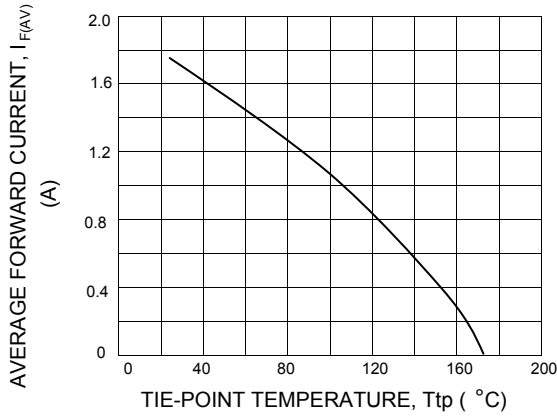
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	300	V
Maximum Continuous Reverse Voltage	$V_R$	300	V
Maximum Average Forward Current	$I_{F(AV)}$	1.2 <sup>(1)</sup>	A
		0.4 <sup>(2)</sup>	
Maximum Non-Repetitive Peak Forward Surge Current (Note 3)	$I_{FSM}$	5.0	A
Maximum Repetitive 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 $V_R = V_{RRMmax}$	$I_R$	1.0	$\mu\text{A}$
	$I_{R(H)}$	100	$\mu\text{A}$
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 :

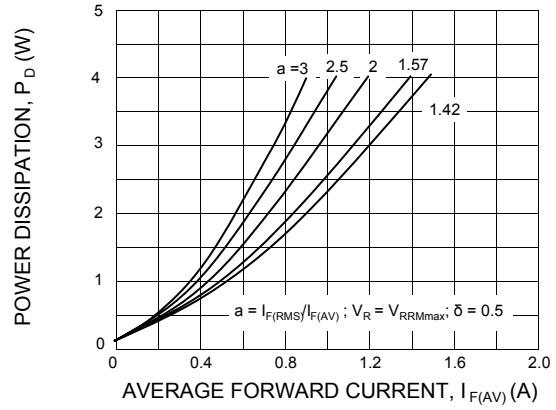
- (1)  $T_{tp} = 85\text{ °C}$ ; see Fig. 1; averaged over any 20 ms period; see Fig. 2
- (2)  $T_{amb} = 60\text{ °C}$ ; PCB mounting ; see Fig. 3; averaged over any 20 ms period; see also Fig.2
- (3)  $t=10\text{ms}$  half sine wave;  $T_J = T_{jmax}$  prior to surge;  $V_R = V_{RRMmax}$
- (4) Reverse 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 ( BYD67 )

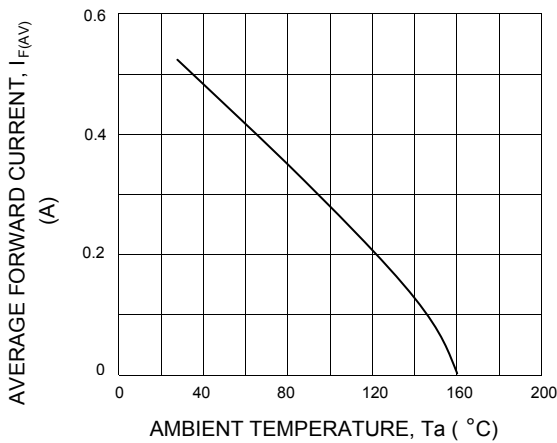
**FIG.1 - MAXIMUM PERMISSIBLE AVERAGE FORWARD CURRENT AS A FUNCTION OF TIE-POINT TEMPERATURE**



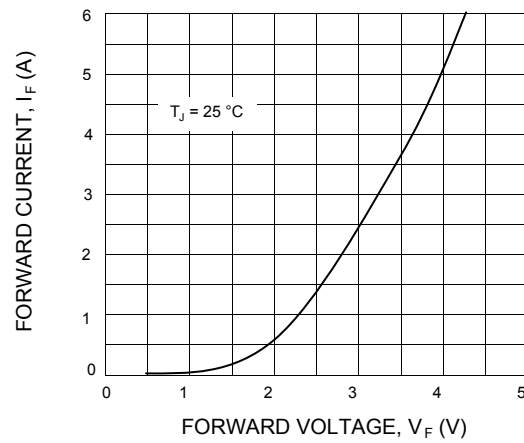
**FIG.2 - MAXIMUM STEADY STATE POWER DISSIPATION AS A FUNCTION OF AVERAGE FORWARD CURRENT**



**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**

