



# BYT3400B(-TR)

## FAST RECOVERY RECTIFIER DIODE

### MAIN PRODUCT CHARACTERISTICS

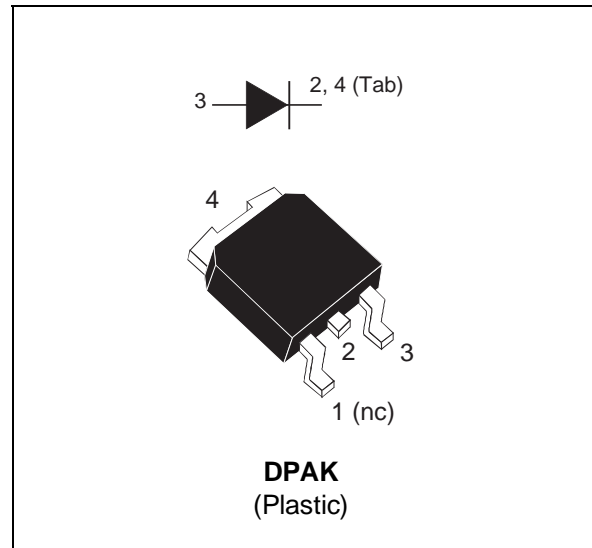
<b>I<sub>F(AV)</sub></b>	<b>3 A</b>
<b>V<sub>RRM</sub></b>	<b>400 V</b>
<b>V<sub>F</sub> (max)</b>	<b>1.4 V</b>

### FEATURES AND BENEFITS

- VERY LOW REVERSE RECOVERY TIME
- VERY LOW SWITCHING LOSSES
- LOW NOISE TURN-OFF SWITCHING
- SURFACE MOUNT PACKAGE
- TAPE AND REEL OPTION : -TR

### DESCRIPTION

Single high voltage rectifier suited to Switch Mode Power Supplies and other power converters.



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit	
V <sub>RRM</sub>	Repetitive peak reverse voltage	400	V	
I <sub>F(RMS)</sub>	RMS forward current	10	A	
I <sub>F(AV)</sub>	Average forward current	T <sub>case</sub> = °C δ = 0.5	3	A
I <sub>FSM</sub>	Surge non repetitive forward current	t <sub>p</sub> = 10 ms Sinusoidal	60	A
T <sub>stg</sub>	Storage temperature range	- 40 to + 150	°C	
T <sub>j</sub>	Maximum junction temperature	150	°C	

### THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
R <sub>TH(j-c)</sub>	Junction to case	TBD	°C/W

### STATIC ELECTRICAL CHARACTERISTICS

Symbol	Tests Conditions	Tests Conditions	Min.	Typ.	Max.	Unit
I <sub>R</sub> *	Reverse leakage current	T <sub>j</sub> = 25°C	V <sub>R</sub> = V <sub>RRM</sub>		20	μA
		T <sub>j</sub> = 100°C			0.5	mA
V <sub>F</sub> **	Forward voltage drop	T <sub>j</sub> = 25°C	I <sub>F</sub> = 3 A		1.5	V
		T <sub>j</sub> = 100°C	I <sub>F</sub> = 3 A		1.4	

Pulse test : \* t<sub>p</sub> = 5 ms, δ < 2 %  
 \*\* t<sub>p</sub> = 380 μs, δ < 2%

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### RECOVERY CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
trr	Tj = 25°C	I <sub>F</sub> = 0.5A I <sub>R</sub> = 1A			25	ns
		I <sub>F</sub> = 1A V <sub>R</sub> = 30V			60	ns

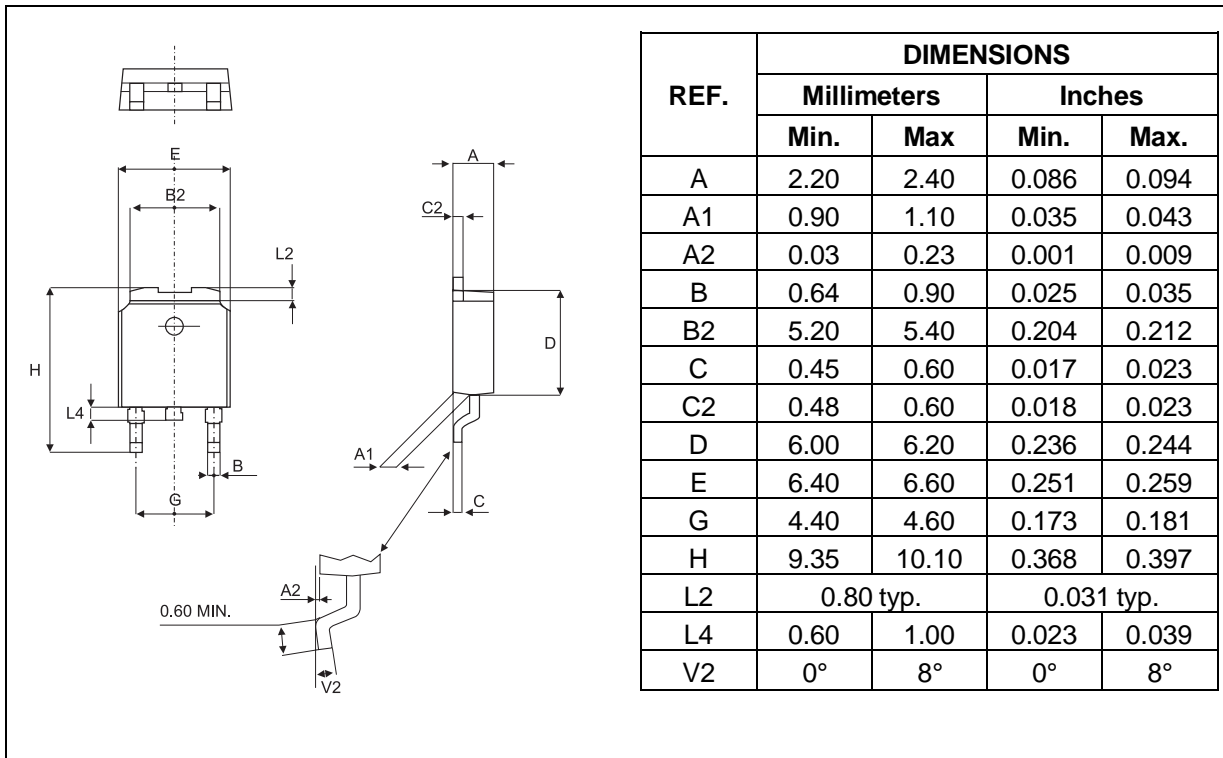
### TURN-OFF SWITCHING CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
t <sub>IRM</sub>	V <sub>CC</sub> = 200V	I <sub>F</sub> = 3A	L <sub>p</sub> ≤ 0.05μH		35	50	ns
I <sub>RM</sub>	Tj = 100°C	dI <sub>F</sub> /dt = -50 A/μs			1.5	2	A

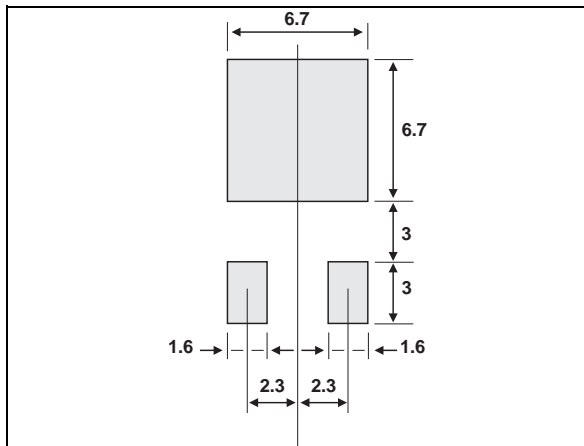
To evaluate the maximum conduction losses use the following equation :

$$P = 1.1 \times I_{F(AV)} + 0.08 I_{F(RMS)}^2$$

**PACKAGE MECHANICAL DATA**  
DPAK



**FOOT PRINT (in millimeters)**



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