



BYT3400B(-TR)

FAST RECOVERY RECTIFIER DIODE

MAIN PRODUCT CHARACTERISTICS

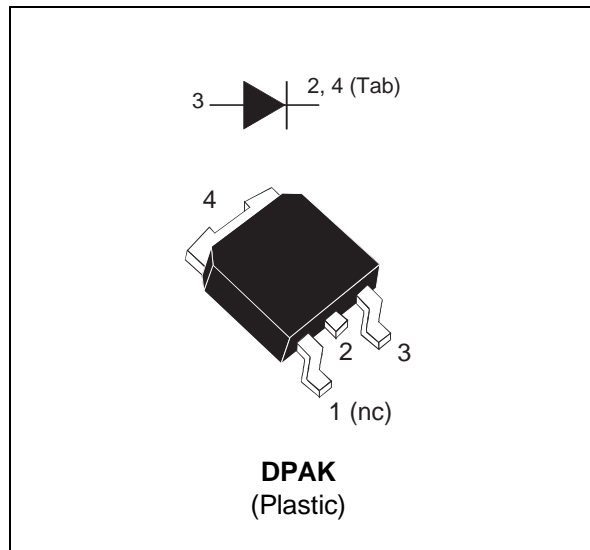
$I_{F(AV)}$	3 A
V_{RRM}	400 V
$V_F(\text{max})$	1.4 V

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_{RRM}	Repetitive peak reverse voltage		400	V
$I_{F(RMS)}$	RMS forward current		10	A
$I_{F(AV)}$	Average forward current	$T_{case} = ^\circ\text{C} \delta = 0.5$	3	A
I_{FSM}	Surge non repetitive forward current	$t_p = 10 \text{ ms}$ Sinusoidal	60	A
T_{stg}	Storage temperature range		- 40 to + 150	$^\circ\text{C}$
T_j	Maximum junction temperature		150	$^\circ\text{C}$

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{TH(j-c)}$	Junction to case	TBD	$^\circ\text{C/W}$

STATIC ELECTRICAL CHARACTERISTICS

Symbol	Tests Conditions	Tests Conditions	Min.	Typ.	Max.	Unit
I_R^*	Reverse leakage current	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$		20	μA
		$T_j = 100^\circ\text{C}$			0.5	mA
V_F^{**}	Forward voltage drop	$T_j = 25^\circ\text{C}$	$I_F = 3 \text{ A}$		1.5	V
		$T_j = 100^\circ\text{C}$	$I_F = 3 \text{ A}$		1.4	

Pulse test : * $t_p = 5 \text{ ms}$, $\delta < 2\%$
 ** $t_p = 380 \mu\text{s}$, $\delta < 2\%$

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RECOVERY CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
trr	Tj = 25°C	I _F = 0.5A I _R = 1A			25	ns
		I _F = 1A V _R = 30V			60	ns

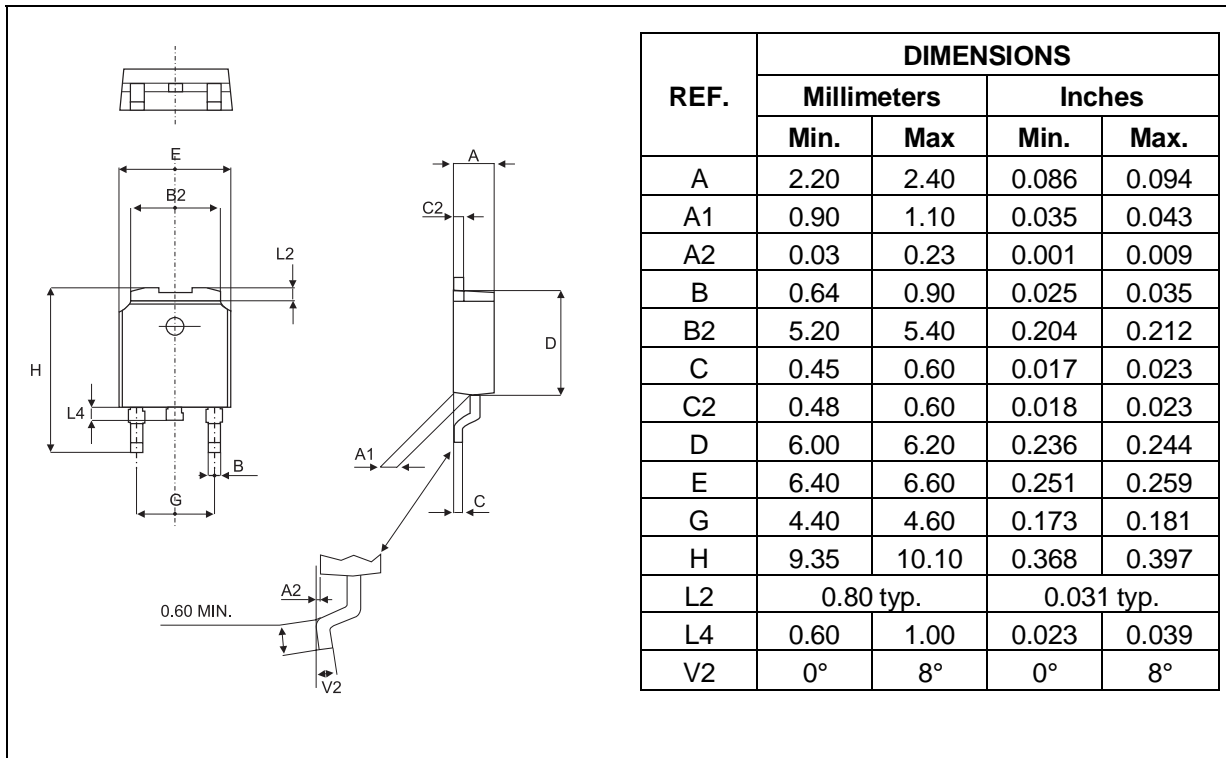
TURN-OFF SWITCHING CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
t _{IRM}	V _{CC} = 200V	I _F = 3A		35	50	ns
I _{RM}	Tj = 100°C	dI _F /dt = -50 A/μs		1.5	2	A

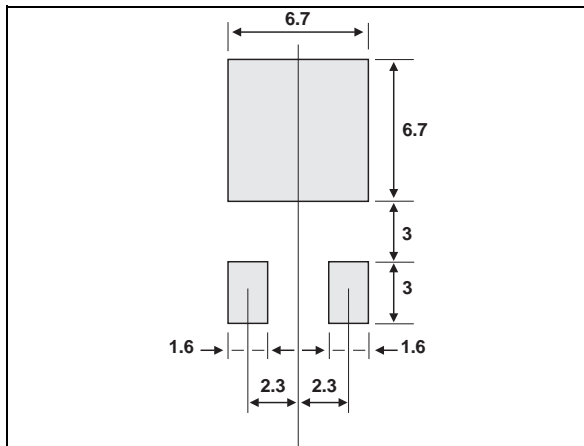
To evaluate the maximum conduction losses use the following equation :

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

PACKAGE MECHANICAL DATA
DPAK



FOOT PRINT (in millimeters)



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