



BYW4200B(-TR)

HIGH EFFICIENCY FAST RECOVERY DIODE

MAIN PRODUCT CHARACTERISTICS

$I_{F(AV)}$	4 A
V_{RRM}	200 V
$V_F(\max)$	0.85 V

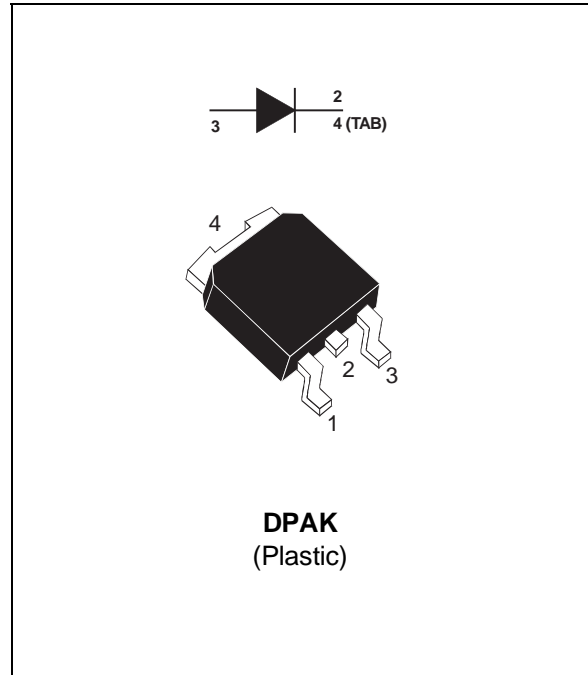
FEATURES AND BENEFITS

- SUITED TO SMPS AND DRIVES
- SURFACE MOUNT PACKAGE
- VERY LOW FORWARD LOSSES
- NEGLIGIBLE SWITCHING LOSSES
- HIGH SURGE CURRENT CAPABILITY
- TAPE AND REEL OPTION : -TR

DESCRIPTION

Single chip rectifier suited to Switch Mode Power Supplies and high frequency converters.

Packaged in DPAK, this surface mount device is intended for use in low voltage, high frequency inverters, free wheeling and rectification applications.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive peak reverse voltage	200	V
V_{RSM}	Non repetitive surge reverse voltage	220	V
$I_{F(RMS)}$	RMS forward current	10	A
$I_{F(AV)}$	Average forward current	$T_{case} = 130^{\circ}C$ $\delta = 0.5$	A
I_{FSM}	Surge non repetitive forward current	$t_p = 10\text{ ms}$ Sinusoidal	A
Tstg	Storage temperature range	- 40 to + 150	$^{\circ}C$
T_j	Maximum junction temperature	150	$^{\circ}C$

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THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
R _{th(j-c)}	Junction to case	5	°C/W

STATIC ELECTRICAL CHARACTERISTICS

Symbol	Tests Conditions	Tests Conditions	Min.	Typ.	Max.	Unit
I _R *	Reverse leakage current	T _j = 25°C	V _R = V _{RRM}		20	μA
		T _j = 100°C		0.15	0.5	mA
V _F **	Forward voltage drop	T _j = 25°C	I _F = 12 A		1.25	V
		T _j = 100°C	I _F = 4 A	0.8	0.85	

Pulse test : * t_p = 5 ms, δ < 2 %
** t_p = 380 μs, δ < 2%

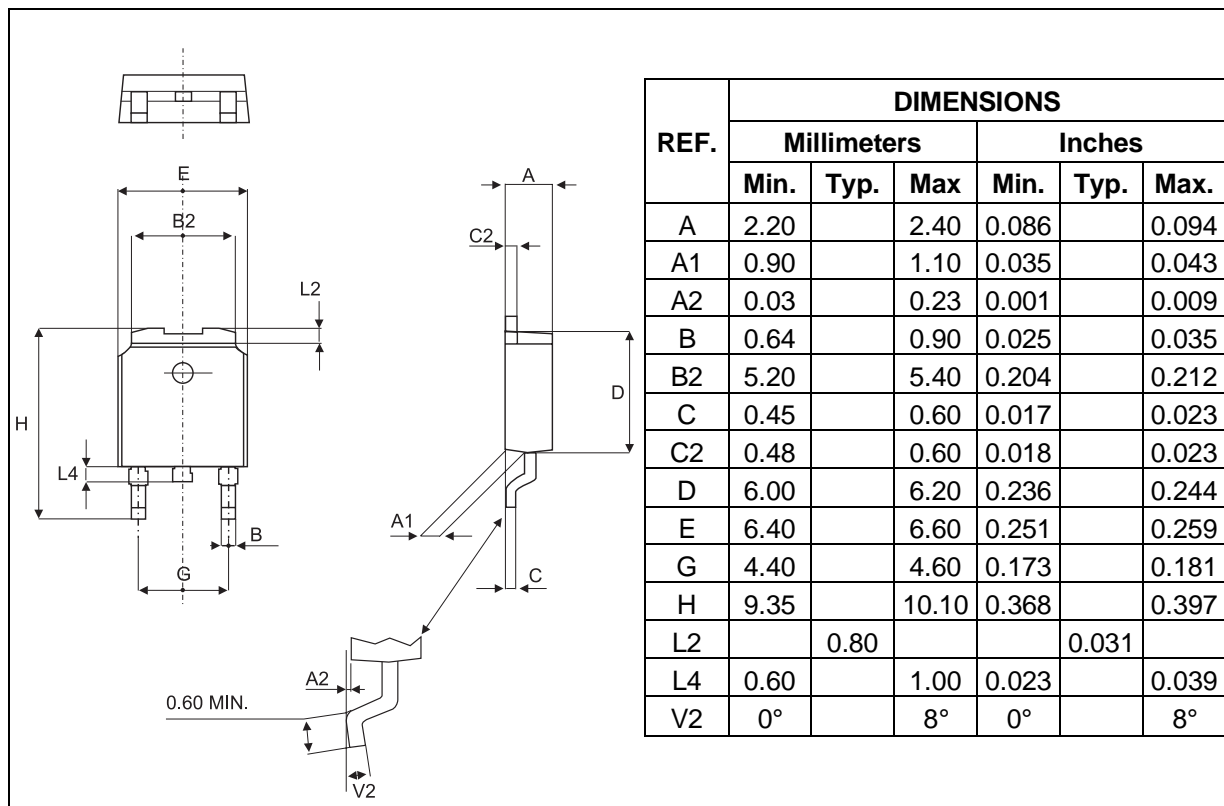
To evaluate the maximum conduction losses use the following equation :

$$P = 0.7 \times I_{F(AV)} + 0.030 I_{F(RMS)}^2$$

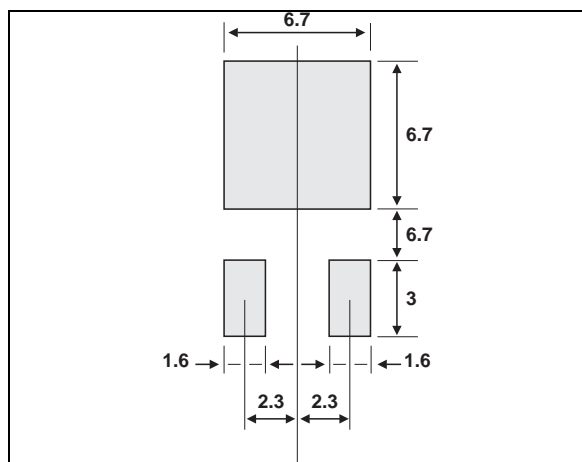
RECOVERY CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
t _{rr}	T _j = 25°C	I _F = 1A V _F = 30V	dI _F /dt = -50 A/μs		30	35	ns
t _{fr}	T _j = 25°C	I _F = 1A V _{FR} = 1.1 x V _F	t _r = 10 ns		20		ns
V _{FP}	T _j = 25°C	I _F = 1A	t _r = 10 ns		5		V

PACKAGE MECHANICAL DATA
DPAK



FOOT PRINT (in millimeters)



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