

Ultrafast Rectifier Diode
BYV42-200
FEATURES

- High thermal cycling performance
- Low on-state losses
- Low thermal resistance
- Soft recovery characteristic

APPLICATIONS

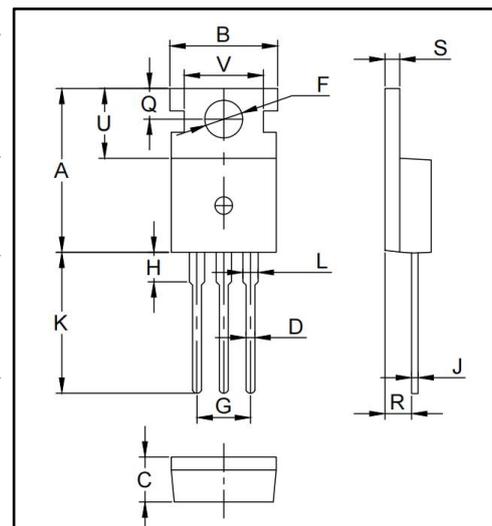
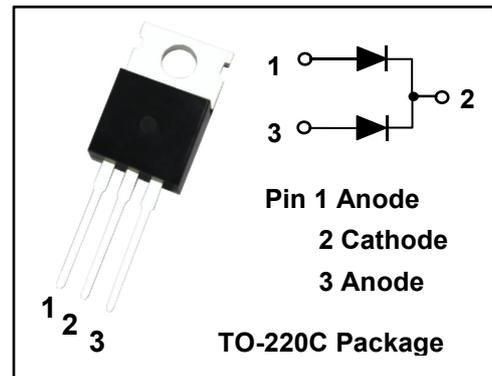
- Switched mode power supplies
- Power Factor Correction (PFC) for Interleaved Topology

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM}	Peak Reverse voltage	200	V
I _{F(AV)}	Average Rectified Forward Current (both diodes conducting) $\delta = 0.5 ; T_C \leq 108^\circ\text{C};$	30	A
I _{FSM}	Non-repetitive Peak Surge Current per diode tp=10ms, sinusoidal	150	A
T _J	Max.Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-40~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case Per diodes	2.4	°C/W



DIM	mm		
	MIN	TYP.	MAX
A	15.50	15.70	15.90
B	9.80	10.00	10.20
C	4.20	4.35	4.50
D	0.70	0.80	0.90
F	3.40	3.55	3.70
G	4.98	5.08	5.18
H	2.68	2.79	2.90
J	0.44	0.52	0.60
K	12.80	13.10	13.40
L	1.20	1.32	1.45
Q	2.70	2.80	2.90
R	2.30	2.50	2.70
S	1.29	1.32	1.35
U	6.45	6.55	6.65
V	8.66	8.76	8.86

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ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MIN	Type	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 15A ; T _J = 25°C	-	-	1.05	V
		I _F = 30 A ; T _J = 25°C	-	-	1.20	
		I _F = 15 A ; T _J = 150°C	-	-	0.85	
I _R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T _J = 25°C	-	-	100	uA
		Rated DC Voltage, T _J = 100°C	-	-	1	mA
t _{rr}	Reverse Recovery Time	I _F = 1A, V _R = 30 V, dI _F /dt = 100A/μs, T _J = 25 °C	-	-	28	ns

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