

Ultra fast Rectifier

BYV52-200

FEATURES

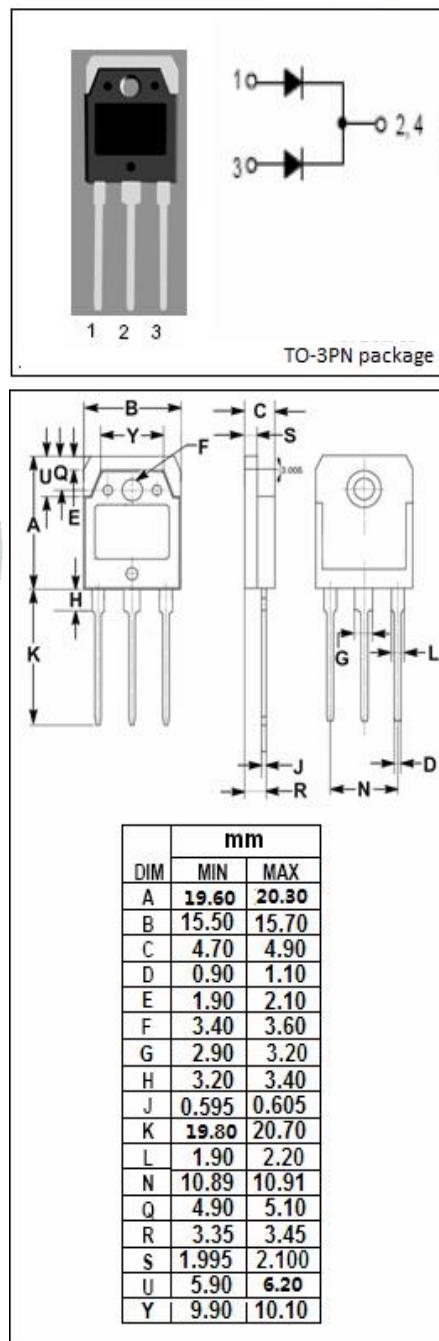
- With TO-3PN packaging
- High surge current
- Super high speed switching
- High reliability by planer design
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage $t_w=500\text{ns}$; duty=1/40	200	V
IF(AV)	Average Rectified Forward Current @ $T_c=90^\circ\text{C}$; Square Wave; Duty=1/2	30	A
IFSM	Nonrepetitive Peak Surge Current 10ms single half sine-wave superimposed on rated load conditions	500	A
TJ	Junction Temperature	-40~150	$^\circ\text{C}$
Tstg	Storage Temperature Range	-40~150	$^\circ\text{C}$



Ultra fast Rectifier**BYV52-200****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-mb}$	Thermal Resistance, Junction to Mounting Base	0.6	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}C$) (Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=20A; T_c=125^{\circ}C$ $I_F=40A; T_c=25^{\circ}C$ $I_F=40A; T_c=125^{\circ}C$	0.85 1.15 1.00	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_c=25^{\circ}C$ $V_R=V_{RWM}; T_c=100^{\circ}C$	25 2500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1.0A; -diF/dt=50A/\mu s; V_R=30V$	50	ns

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