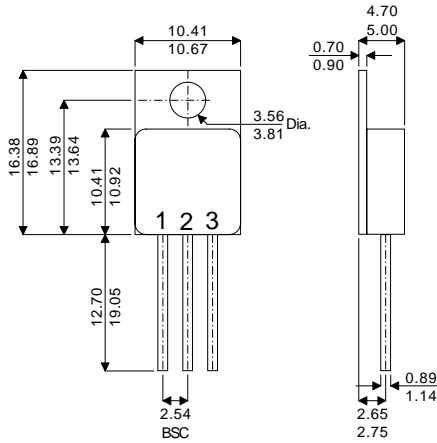


MECHANICAL DATA

Dimensions in mm



TO-220XM

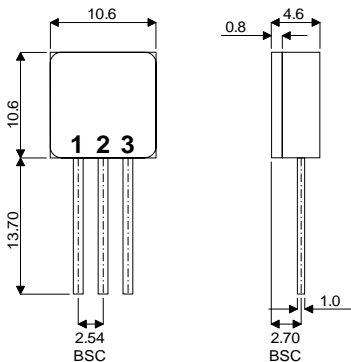
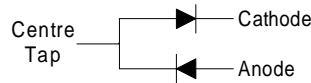
Pin 1 – Anode
 Pin 2 – Centre Tap
 Pin 3 – Cathode

HERMETICALLY SEALED
DUAL FAST RECOVERY
SILICON RECTIFIER
FOR HI-REL APPLICATIONS

- Reverse Connected version of BYV32-xxx RM product
- Tab TO-220M (Isolated) (XM) and Tabless (XTM) package options

FEATURES

- HERMETIC TO220 METAL PACKAGE
- SCREENING OPTIONS AVAILABLE
- ALL LEADS ISOLATED FROM CASE
- VOLTAGE RANGE 50 TO 200V
- AVERAGE CURRENT 20A
- VERY LOW REVERSE RECOVERY TIME – $t_{rr} = 35ns$
- VERY LOW SWITCHING LOSSES



TO-220TXM

Pin 1 – Anode
 Pin 2 – Centre Tap
 Pin 3 – Cathode

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)		BYV32-50M	BYV32-100M	BYV32-150M	BYV32-200M
V_{RRM}	Peak Repetitive Reverse Voltage	50V	100V	150V	200V
V_{RWM}	Working Peak Reverse Voltage	50V	100V	150V	200V
V_R	Continuous Reverse Voltage	50V	100V	150V	200V
I_{FRM}	Repetitive Peak Forward Current $t_p = 10\mu s$	200A			
$I_{F(AV)}$	Average Forward Current $T_{case} = 70^{\circ}C$ (switching operation, $\delta = 0.5$, both diodes conducting)	20A			
I_{FSM}	Surge Non Repetitive Forward Current $t_p = 10 ms$	80A			
T_{stg}	Storage Temperature Range	-65 to 200°C			
T_j	Maximum Operating Junction Temperature	200°C			

ELECTRICAL CHARACTERISTICS (Per Diode) ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_R Reverse Current	$V_R = V_{RWM}$ $T_j = 25^{\circ}\text{C}$			30	μA
	$V_R = V_{RWM}$ $T_j = 100^{\circ}\text{C}$			0.6	mA
V_F * Forward Voltage	$I_F = 8\text{A}$ $T_C = 25^{\circ}\text{C}$			1.1	V
	$I_F = 20\text{A}$ $T_C = 25^{\circ}\text{C}$			1.5	
	$I_F = 5\text{A}$ $T_C = 100^{\circ}\text{C}$			0.95	
t_{rr} Reverse Recovery Time	$I_F = 2\text{A}$ $V_R = 30\text{V}$ $di / dt = 20\text{A}/\mu\text{s}$			35	ns
	$I_F = 1\text{A}$ $V_R = 30\text{V}$ $di / dt = 50\text{A}/\mu\text{s}$			50	ns
Q_{rr} Recovered Charge	$I_F = 2\text{A}$ $V_R = 30\text{V}$ $di / dt = 20\text{A}/\mu\text{s}$			15	nC
V_{FP} Forward Recovery Overvoltage	$di / dt = 50\text{A}/\mu\text{s}$ $I_F = 1\text{A}$		1.0		V

* Pulse Test: $t_p \leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

THERMAL CHARACTERISTICS

$R_{\theta JC} \dagger$ Thermal Resistance Junction – Case			1.6	$^{\circ}\text{C}/\text{W}$
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\dagger Both diodes conducting.