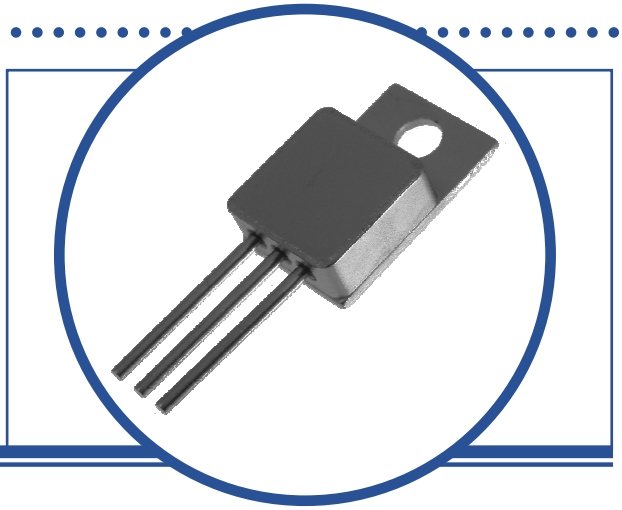
DUAL FAST RECOVERY RECTIFIER DIODE

TT electronics
Semelab Limited

BYV32-50M BYV32-100M
BYV32-150M BYV32-200M

- Very Low Reverse Recovery Time – t_{rr} <35ns.
- Voltage Range 50V To 200V.
- Hermetic TO220 (TO-257AB) Isolated Metal Package.
- Ideally Suited For Switching Power Supplies, Inverters And As Free Wheeling Diodes.
- Space Level and High-Reliability Screening Options Available



ABSOLUTE MAXIMUM RATINGS (PerDiode, T_C= 25°C unless otherwise stated)

		50M	100M	150M	200M
V_{RRM}	Repetitive Peak 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 = 10µs)	200A			
$I_{F(AV)}$ (1)	Average Forward Current (T_C = 70°C)	20A			
I_{FSM}	Surge Peak Forward Current (t_p = 8.3ms half-sine)	80A			
T_{STG}	StorageTemperature Range	-65 to +200°C			
T_J	Maximum Operating Junction Temperature	+200°C			

ELECTRICAL CHARACTERISTICS (Per Diode, T_C = 25°C unless otherwise stated)

Symbol	Parameter	Test Conditions		Min	Typ	Max	Units
V_F (2)	Forward Voltage Drop	I_F = 8A	T_C = 25°C			1.1	V
		I_F = 20A				1.5	
		I_F = 5A	T_C = 100°C			0.95	
I_R	Reverse Leakage Current	$V_R = V_{RWM}$				30	µA
			T_C = 100°C			600	
t_{rr1} (3)	Reverse Recovery Time	I_F = 1.0A	di/dt = 50A/µs			35	ns
t_{rr2}		I_F = 0.5A, I_{REC} = 0.25A	I_R = 1.0A			25	

Notes
(1) Switching operation, Duty Cycle = 50%, both diodes conducting.
(2) Pulse Width < 300µs, Duty Cycle < 2%
(3) By design, not a production test

THERMAL PROPERTIES

Symbol	Parameter	Max	Units
$R_{\theta JC}$	Thermal Resistance Junction to Case (per diode)	4.3	°C/W

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing an order.

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BYV32-M SERIES

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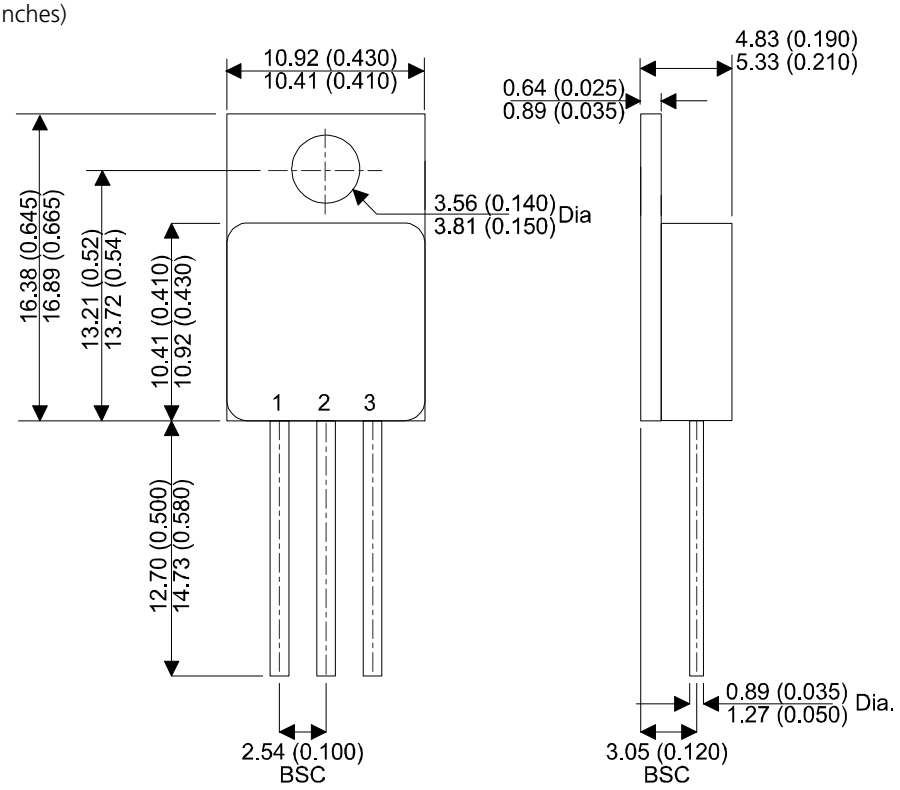
MECHANICAL DATA

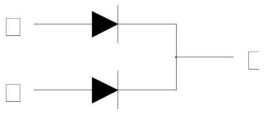
Dimensions in mm (inches)



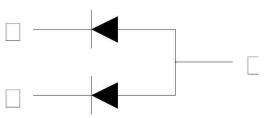
TO220M (TO-257AB)

Variant	Pin 1	Pin 2	Pin3
BYV32-xxxM	Anode 1	Cathode	Anode 2
BYV32-xxxAM	Cathode 1	Anode	Cathode 2
BYV32-xxxRM	Cathode 1	Centre Tap	Anode

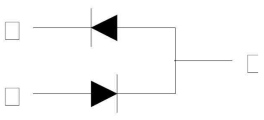
BYV32-xxxM



BYV32-xxxAM



BYV32-xxxRM



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