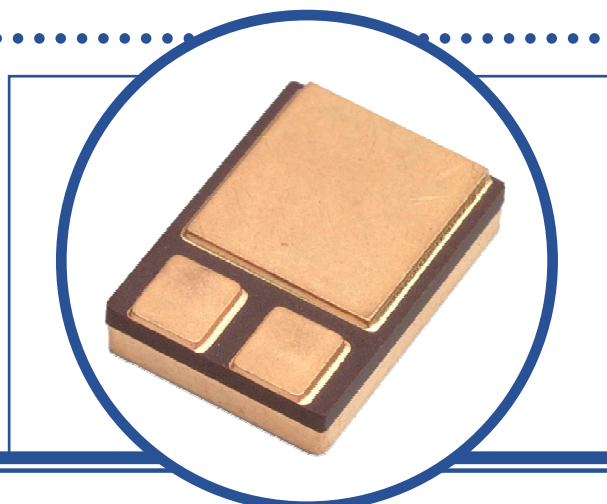


DUAL FAST RECOVERY RECTIFIER DIODE

BYV32-50SMD BYV32-100SMD BYV32-150SMD BYV32-200SMD

- Very Low Reverse Recovery Time – $t_{rr} < 35\text{ns}$.
- Voltage Range 50V To 200V.
- Hermetic Ceramic Surface Mount Package.
- Ideally Suited For Switching Power Supplies, Inverters And As Free Wheeling Diodes.
- Space Level and High-Reliability Screening Options Available



ABSOLUTE MAXIMUM RATINGS (Per Diode, $T_C = 25^\circ\text{C}$ unless otherwise stated)

		-50	-100	-150	-200
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 ($t_p = 10\mu\text{s}$)	200A			
$I_{F(AV)}^{(1)}$	Average Forward Current ($T_C = 70^\circ\text{C}$)	20A			
I_{FSM}	Surge Peak Forward Current ($t_p = 8.3\text{ms}$ half-sine)	80A			
T_{STG}	Storage Temperature Range	-65 to $+200^\circ\text{C}$			
T_J	Maximum Operating Junction Temperature	$+200^\circ\text{C}$			

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_F^{(2)}$	Forward Voltage Drop	$I_F = 8\text{A}$ $T_C = 25^\circ\text{C}$			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	
I_R	Reverse Leakage Current	$V_R = V_{RWM}$ $T_C = 100^\circ\text{C}$			30 600	μA
$t_{rr1}^{(3)}$	Reverse Recovery Time	$I_F = 1.0\text{A}$ $di/dt = 50\text{A}/\mu\text{s}$			35	ns
t_{rr2}		$I_F = 0.5\text{A}$ $I_R = 1.0\text{A}$ $I_{REC} = 0.25\text{A}$			25	

Notes

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

THERMAL PROPERTIES

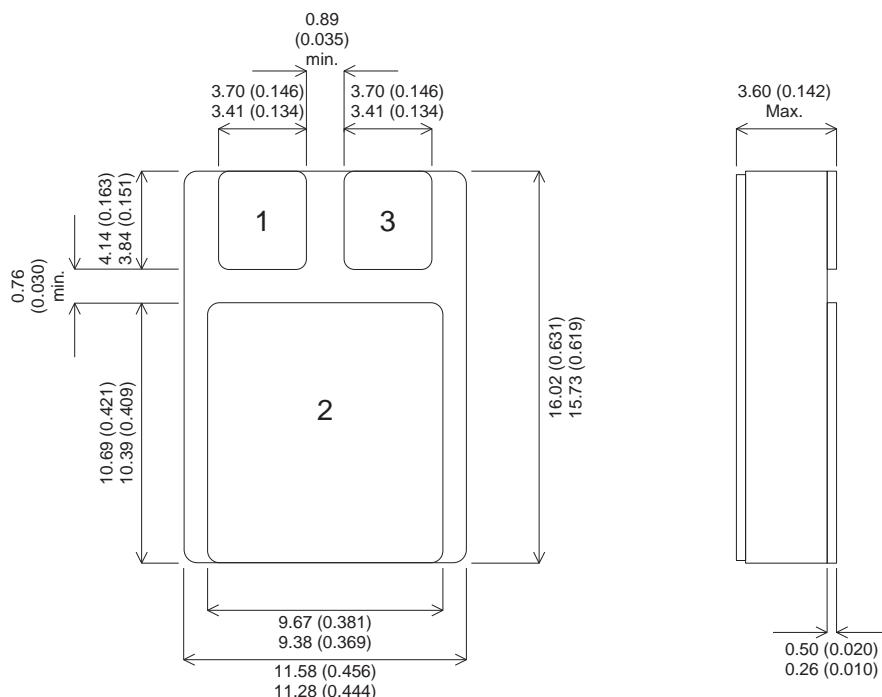
Symbol	Parameter	Max	Units
$R_{\theta JC}$	Thermal Resistance Junction to Case (per diode)	1.6	$^\circ\text{C}/\text{W}$

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.

DUAL FAST RECOVERY RECTIFIER DIODE BYV32-SMD SERIES

MECHANICAL DATA

Dimensions in mm (inches)



SMD1 (TO-276AB)

Underside View

Pad 1 – Anode 1 Pad 2 – Cathode Pad 3 – Anode 2