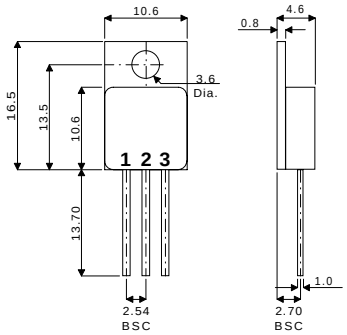
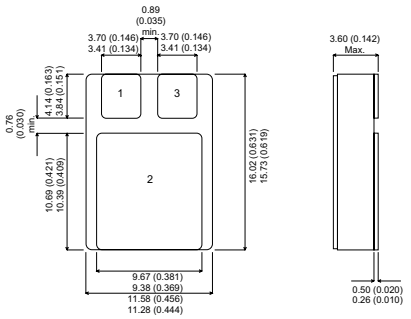
BYV29–300M
BYV29–400M
BYV29–500M

MECHANICAL DATA
Dimensions in mm



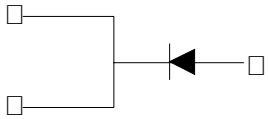
TO220 METAL



SMD1
CERAMIC SURFACE MOUNT

ELECTRICAL CONNECTIONS

BYV29xxxM



1 = K Cathode
2 = K Cathode
3 = A Anode

HERMETICALLY SEALED FAST RECOVERY SILICON RECTIFIER FOR HI–REL APPLICATIONS

FEATURES

- **HERMETIC TO220 METAL OR CERAMIC SURFACE MOUNT PACKAGES**
- **SCREENING OPTIONS AVAILABLE**
- **ALL LEADS ISOLATED FROM CASE**
- **VOLTAGE RANGE 50 TO 200V**
- **AVERAGE CURRENT 8A**
- **VERY LOW REVERSE RECOVERY TIME – t_{rr} = 35ns**
- **VERY LOW SWITCHING LOSSES**

Applications include secondary rectification in high frequency switching power supplies

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

			BYV29 –3000M	BYV29 –400M	BYV29 –500M
V_{RRM}	Peak Repetitive Reverse Voltage		300V	400V	500V
V_{RWM}	Working Peak Reverse Voltage		200V	30V	400V
V_R	Continuous Reverse Voltage		200V	300V	400V
I_{FRM}	Repetitive Peak Forward Current	t_p = 10µs	200A		
$I_{F(AV)}$	Average Forward Current	T_{case} = 70°C	9A		
	(switching operation, δ = 0.5)				
I_{FSM}	Surge Non Repetitive Forward Current	t_p = 10 ms	100A		
T_{stg}	Storage Temperature Range		–65 to 200°C		
T_j	Maximum Operating Junction Temperature		200°C		

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

BYV29–300M
BYV29–400M
BYV29–500M

ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
I_R	Reverse Current	$V_R = V_{RWM}$	T_j = 25°C			30	µA
		$V_R = V_{RWM}$	T_j = 100°C			0.6	mA
V_F *	Forward Voltage	I_F = 8A	T_C = 25°C			1.1	V
		I_F = 20A	T_C = 25°C			1.5	
		I_F = 5A	T_C = 100°C			0.95	
t_{rr}	Reverse Recovery Time	I_F = 1A di / dt = 50A/µs	V_R = 30V			35	ns
		I_F = 2A di / dt = 20A/µs	V_R = 30V			50	
Q_{rr}	Recovered Charge	I_F = 2A di / dt = 20A/µs	V_R = 30V			15	nC
V_{FP}	Forward Recovery Overvoltage	I_F = 1A	di / dt = 0A/µs		1.0		V

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

THERMAL CHARACTERISTICS (TO220 METAL CASE)

$R_{\theta JC}$†	Thermal Resistance Junction – Case				2.6	°C/W

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.