

# FAST RECOVERY RECTIFIER DIODE

## BYV34-500P1

- Hermetic TO3 Metal package.



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

$V_{RRM}$	Peak Repetitive Reverse Voltage		500V
$V_{RWM}$	Working Peak Reverse Voltage		400V
$V_R$	Continuous Reverse Voltage		400V
$I_{FRM}$	Repetitive Peak Forward Current	$t_p = 10\mu\text{s}$	200A
$I_{F(AV)}$	Average Forward Current	$T_C = 70^\circ\text{C}$	20A
	(Switching operation $\delta = 0.5$ )		
$I_{FSM}$	Surge Non Repetitive Forward Current	$t_p = 10\text{ms}$	100A
$T_{stg}$	Storage Temperature Range		-65 to +200°C
$T_j$	Maximum Operating Junction Temperature		200°C

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 orders.



A subsidiary of  
TT electronics plc.

# SILICON NPN DARLINGTON POWER TRANSISTOR BYV34-500P1

## ELECTRICAL CHARACTERISTICS (T<sub>C</sub> = 25°C unless otherwise stated)

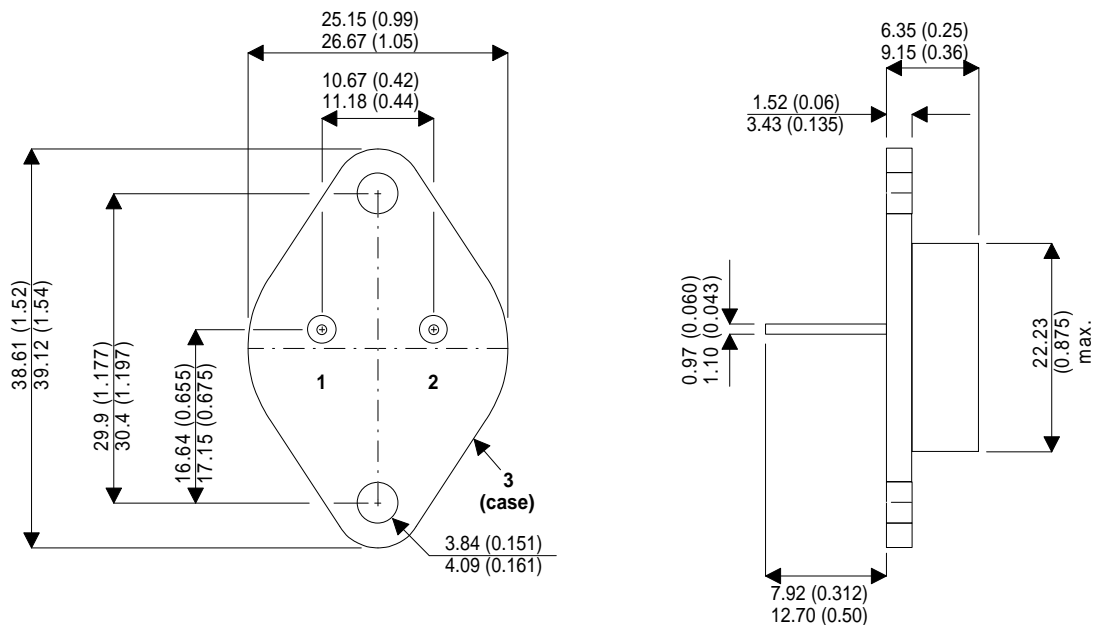
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = V <sub>RWM</sub> T <sub>J</sub> = 25°C			50	μA
V <sub>F</sub> <sup>(1)</sup>	Forward Voltage	I <sub>F</sub> = 20A    T <sub>J</sub> = 25°C			1.7	V
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> = 1.0A    V <sub>R</sub> = 30V di/dt = 100A/μs		50		ns
Q <sub>rr</sub>	Recovery Charge	I <sub>F</sub> = 2A    V <sub>R</sub> = 30V di/dt = 20A/μs		50		nC
V <sub>FP</sub>	Forward Voltage Recovery Overvoltage	di/dt = 100A/μs    I <sub>F</sub> = 10A		2.5		V

### Notes

(1) Pulse Width ≤ 300μs, δ ≤ 2%

## MECHANICAL DATA

Dimensions in mm (inches)



## TO3 (TO-204AA) METAL PACKAGE Underside View

Pin 1 –N/C

Pin 2 – Anode

Case - Cathode