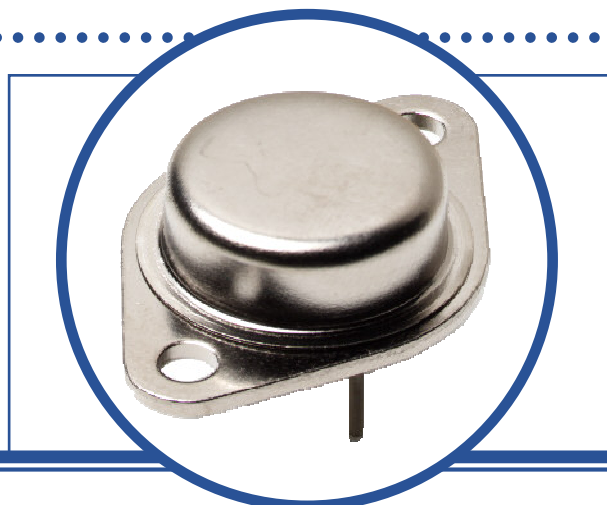


FAST RECOVERY RECTIFIER DIODE

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 $T_C = 70^\circ\text{C}$ (Switching operation $\delta = 0.5$)	20A
I_{FSM}	Surge Non Repetitive Forward Current $t_p = 10\text{ms}$	100A
T_{stg}	Storage Temperature Range	-65 to $+200^\circ\text{C}$
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.

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SILICON NPN DARLINGTON POWER TRANSISTOR BYV34-500P1

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

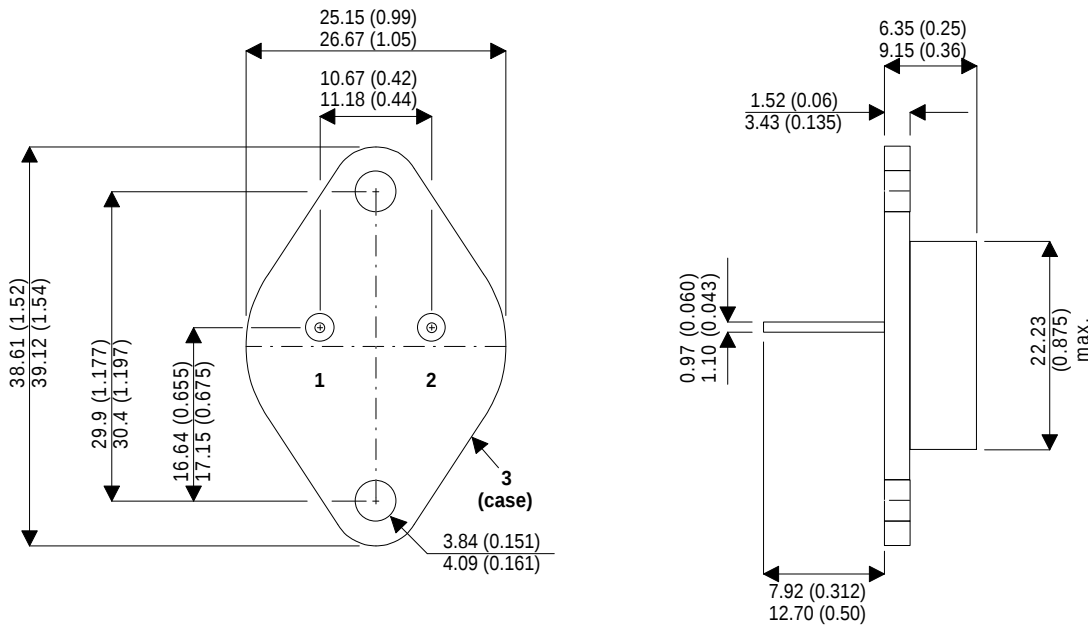
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
I _R	Reverse Current	V _R = V _{RWM} T _J = 25°C			50	μA
V _F ⁽¹⁾	Forward Voltage	I _F = 20A T _J = 25°C			1.7	V
t _{rr}	Reverse Recovery Time	I _F = 1.0A V _R = 30V di/dt = 100A/μs		50		ns
Q _{rr}	Recovery Charge	I _F = 2A V _R = 30V di/dt = 20A/μs		50		nC
V _{FP}	Forward Voltage Recovery Overvoltage	di/dt = 100A/μs I _F = 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