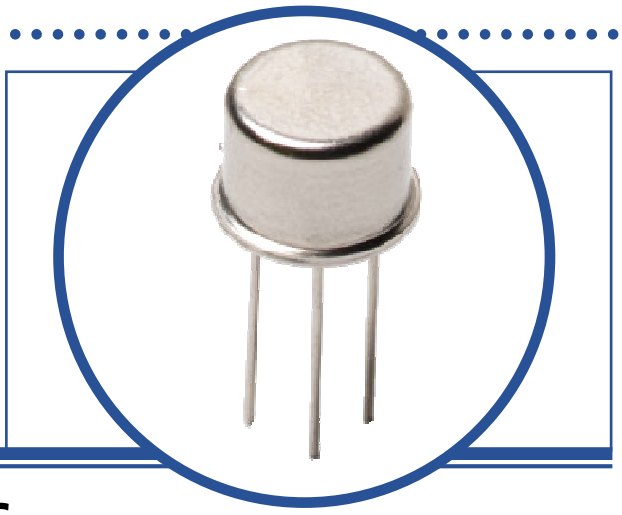
SILICON PLANAR PNP TRANSISTOR

TT electronics
Semelab Limited

2N1132



- High Speed Switching
- Hermetic TO-39 Metal package.
- Ideally suited for Small Signal General Purpose and Switching Applications
- Screening Options Available

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage		-50V
V_{CEO}	Collector – Emitter Voltage		-40V
V_{EBO}	Emitter – Base Voltage		-5V
I_C	Continuous Collector Current		-600mA
P_D	Total Power Dissipation at	T_A = 25°C	600mW
		Derate Above 25°C	3.4mW/°C
P_D	Total Power Dissipation at	T_C = 25°C	2W
		Derate Above 25°C	11.4mW/°C
T_J	Junction Temperature Range		-65 to +200°C
T_{stg}	Storage Temperature Range		-65 to +200°C

THERMAL PROPERTIES

Symbols	Parameters	Min.	Typ.	Max.	Units
$R_{\theta JA}$	Thermal Resistance, Junction To Ambient			292	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction To Case			87.5	°C/W

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

Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
$V_{(BR)CEO}$ [1]	Collector-Emitter Breakdown Voltage	I_C = -10mA I_B = 0	-40			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = -10µA I_E = 0	-50			V
I_{CBO}	Collector Cut-Off Current	V_{CB} = -50V I_E = 0			-10	µA
		V_{CB} = -30V I_E = 0			-1.0	µA
		T_A = 150°C			-100	µA
I_{EBO}	Emitter Cut-Off Current	V_{EB} = -5V I_C = 0			-100	µA
I_{CER}	Collector Cut-Off Current	V_{CE} = -50V R_{BE} <= 10Ω			-10	mA
$V_{CE(sat)}$ [1]	Collector-Emitter Saturation Voltage	I_C = -150mA I_B = -15mA			-1.3	V
$V_{BE(sat)}$ [1]	Base-Emitter Saturation Voltage	I_C = -150mA I_B = -15mA			-1.5	V
h_{FE} [1]	Forward-current transfer ratio	I_C = -5mA V_{CE} = -10V	25			
		I_C = -150mA V_{CE} = -10V	30		100	

DYNAMIC CHARACTERISTICS

$\lvert h_{fe} \rvert$	Small signal forward-current transfer ratio	I_C = -50mA V_{CE} = -10V f = 20MHz	3.0		20	
C_{obo}	Output Capacitance	V_{CB} = -10V I_E = 0 f = 1.0MHz			45	pF
C_{ibo}	Input Capacitance	V_{EB} = -0.5V I_C = 0 f = 1.0MHz			80	pF
t_d	Delay Time	I_C = -150mA V_{CC} = -30V I_{B1} = - I_{B2} = -15mA			15	ns
t_r	Rise Time				25	ns
t_s	Storage Time				80	ns
t_f	Fall Time				25	ns

Notes
(1) Pulse Width ≤ 300us, δ ≤ 2%

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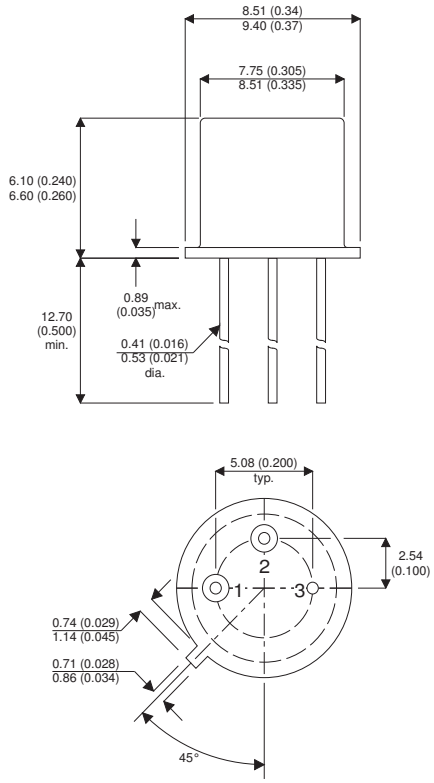
MECHANICAL DATA

Dimensions in mm (inches)



TO-39 (TO-205AD) METAL PACKAGE
Underside View

Pin 1 - Emitter Pin 2 - Base Pin 3 - Collector