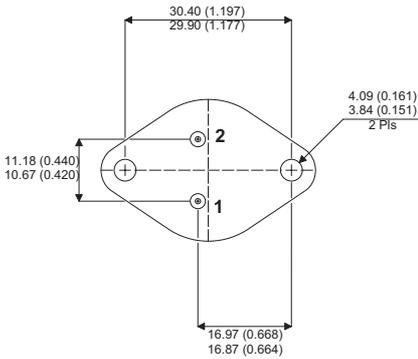
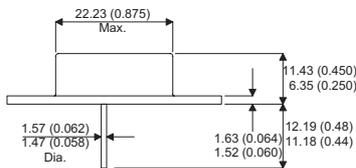
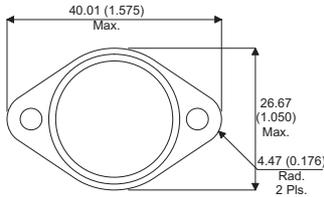


MECHANICAL DATA

Dimensions in mm (inches)

MEDIUM POWER PNP SWITCHING TRANSISTOR FOR SWITCHING APPLICATIONS



TO-3 (TO-204AA)

Underside View

Pin 1 – Base Pin 2 – Emitter Pin 3 – Collector

FEATURES

- SILICON PLANAR EPITAXIAL PNP TRANSISTOR
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS
- JAN LEVEL SCREENING OPTIONS

APPLICATIONS:

The 2N4398 is intended for use in power amplifier and switching circuits.

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

V_{CEO}	Collector - Emitter Voltage ($I_B = 0$)	40V
V_{CBO}	Collector - Base Voltage ($I_E = 0$)	40V
V_{EBO}	Collector - Emitter Voltage ($I_C = 0$)	5V
I_C	Collector Current	30A
I_{CM}	Collector Peak Current	50A
I_B	Base Current	7.5A
P_{TOT}	Total Power Dissipation @ $T_{case} < 25^{\circ}C$	200W
T_j, T_{stg}	Maximum Junction And Storage Temperature	-65 to +200°C

Semelab Plc 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.

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
I_{EBO}	Emitter Cut-off Current	$I_C=0$	$V_{EB}=5V$			5	mA
I_{CBO}	Collector Cut-off Current	$I_E=0$	$V_{EB}=40V$			1	
I_{CEV}	Collector Cut-off Current ($V_{BE}=-1.5V$)	$V_{CE}=40V$				5	
		$V_{CE}=30V$	$T_C=150^{\circ}C$			10	
I_{CEO}	Collector Cut-off Current	$I_B=0$	$V_{CE}=40V$			5	
$V_{CEO(sus)*}$	Collector-Emitter Sustaining Voltage	$I_B=0$	$I_C=200mA$	40			V
h_{FE}^*	DC Current Gain	$I_C=15A$	$V_{CE}=2V$	15		60	—
		$I_C=30A$	$V_{CE}=4V$	5			
$V_{CE(sat)*}$	Collector-Emitter Saturation Voltage	$I_C=10A$	$I_B=1A$			0.75	V
		$I_C=15A$	$I_B=1.5A$			1.0	
		$I_C=20A$	$I_B=2A$			2.0	
		$I_C=30A$	$I_B=6A$			4.0	
$V_{BE(sat)*}$	Base-Emitter Saturation Voltage	$I_C=10A$	$I_B=1.0A$			1.7	V
		$I_C=15A$	$I_B=1.5A$			1.8	
		$I_C=20A$	$I_B=2.0A$			2.5	
V_{BE}^*	Base-Emitter Voltage	$I_C=15A$	$V_{CE}=2V$			1.7	V
		$I_C=30A$	$V_{CE}=4V$			3.0	
f_T	Transition Frequency	$I_C=1A$	$V_{CE}=10V$	4			MHz
		$f=1MHz$					
h_{fe}	Small Signal Current Gain	$I_C=1A$	$V_{CE}=10V$	40			—
		$f=1KHz$					
t_r	Rise Time	$V_{CC}=30V$	$I_C=10A$			1	μs
t_s	Storage Time	$I_{B1}=-I_{B2}=1A$				2	
t_f	Fall Time					1	
$R_{\theta JC}$	Thermal Resistance Junction - Case					0.875	$^{\circ}C/W$

* Pulsed: Pulse Duration = 300 μs , duty cycle = 1.5%