



Micro Commercial Components



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 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# 2SA1298-O 2SA1298-Y

## Features

- Halogen free available upon request by adding suffix "-HF"
- Power switching application
- Low frequency power amplifier application
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	-30	V
$V_{CBO}$	Collector-Base Voltage	-35	V
$V_{EBO}$	Emitter-Base Voltage	-5.0	V
$I_C$	Collector Current, Continuous	-0.8	A
$P_D$	Power Dissipation	0.2	W
$T_J$	Operating Junction Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$

## Electrical Characteristics @ 25°C Unless Otherwise Specified

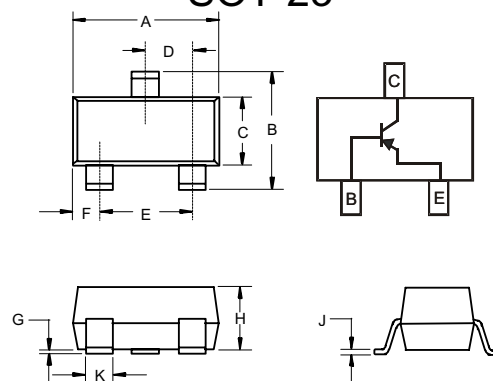
Symbol	Parameter	Min	Type	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ( $I_C=-10mA_{dc}$ , $I_B=0$ )	-30			Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-1mA_{dc}$ , $I_E=0$ )	-35			Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-1mA_{dc}$ , $I_C=0$ )	-5.0			Vdc
$I_{CBO}$	Collector cut-off Current ( $V_{CB}=-30V_{dc}$ , $I_E=0$ )			-0.1	$\mu A_{dc}$
$I_{EBO}$	Emitter cut-off Current ( $V_{EB}=-5V_{dc}$ , $I_C=0$ )			-0.1	$\mu A_{dc}$
$h_{FE}$	DC Current Gain ( $I_C=-100mA_{dc}$ , $V_{CE}=-1.0V_{dc}$ ) ( $I_C=-800mA_{dc}$ , $V_{CE}=-1.0V_{dc}$ )	100 40		320	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-500mA_{dc}$ , $I_B=-20mA_{dc}$ )			-0.4	Vdc
$V_{BE}$	Base-Emitter Voltage ( $I_C=-10mA_{dc}$ , $V_{CE}=-1V_{dc}$ )	-0.5		-0.8	Vdc
$f_T$	Transition Frequency ( $I_C=-10mA_{dc}$ , $V_{CE}=-5V_{dc}$ )		250		MHz
$C_{ob}$	Collector output capacitance ( $I_E=0$ , $V_{CB}=-10V_{dc}$ , $f=1MHz$ )		13		pF

### CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	100-200	160-320
MARKING	IO	IY

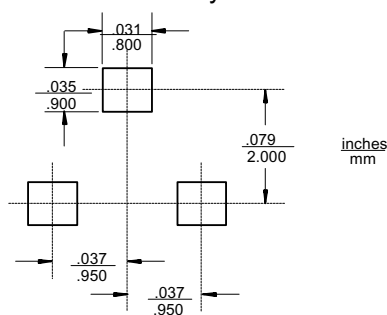
## PNP General Purpose Amplifier

### SOT-23



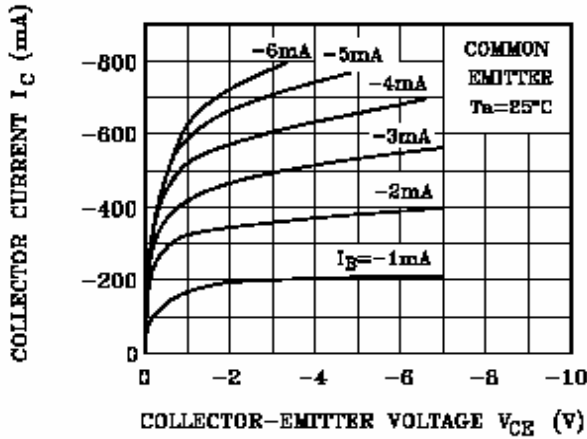
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout

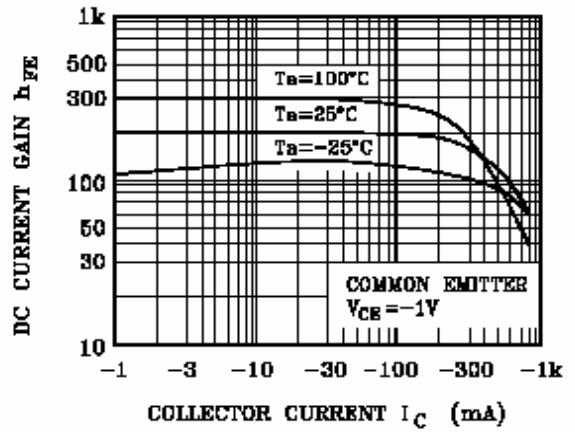


**2SA1298**

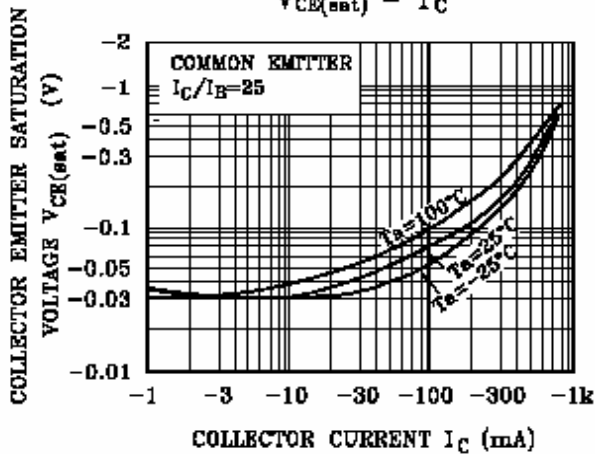
$I_C - V_{CE}$



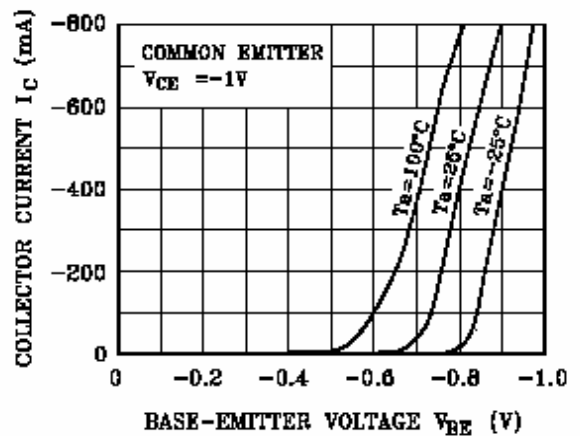
$h_{FE} - I_C$



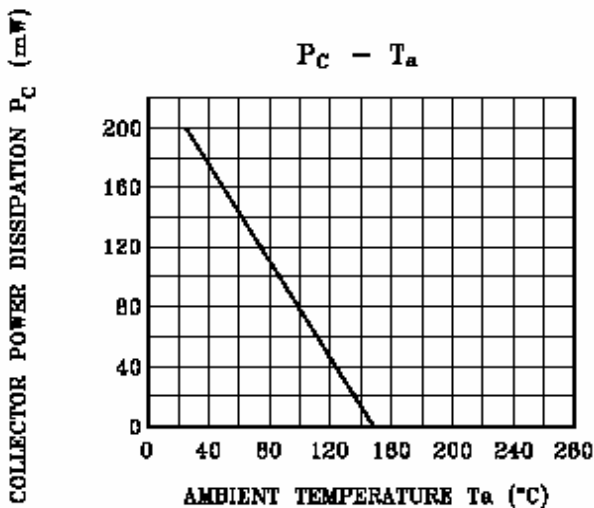
$V_{CE(sat)} - I_C$



$I_C - V_{BE}$



$P_C - T_a$





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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