

**TO-92MOD Plastic-Encapsulate Transistors**

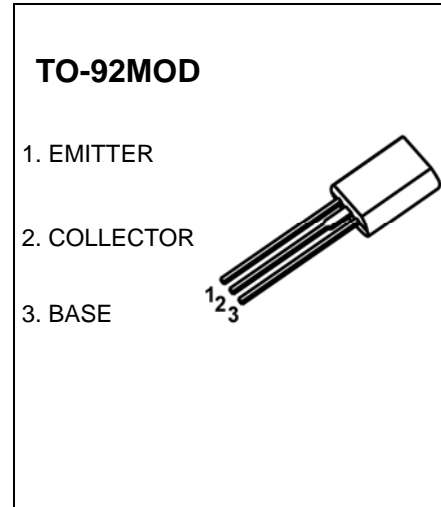
**2SC1627A** TRANSISTOR (NPN)

**FEATURE**

- Complementary to 2SA817A
- Driver Stage Application of 30 to 35 Watts Amplifiers

**MAXIMUM RATINGS**( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Symbol	parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	80	V
$V_{CE0}$	Collector-Emitter Voltage	80	V
$V_{EB0}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	0.4	A
$P_C$	Collector Power Dissipation	0.8	W
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-55-150	$^{\circ}\text{C}$



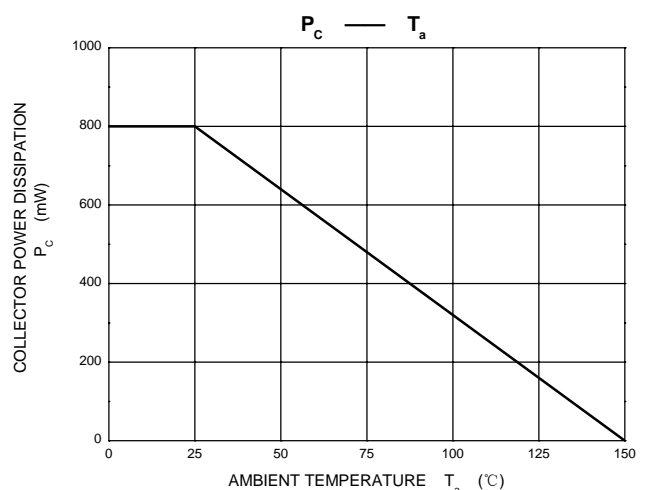
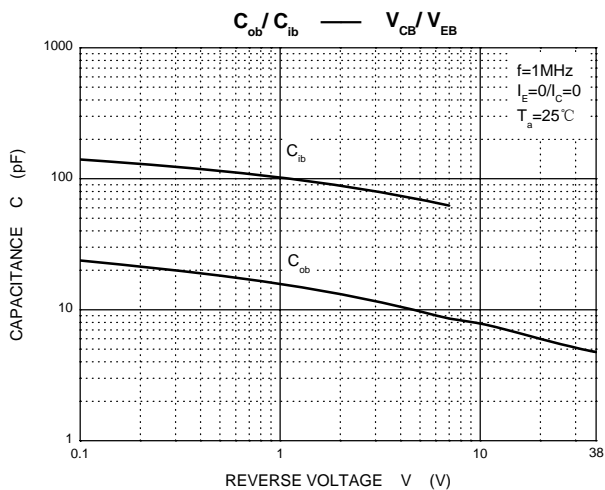
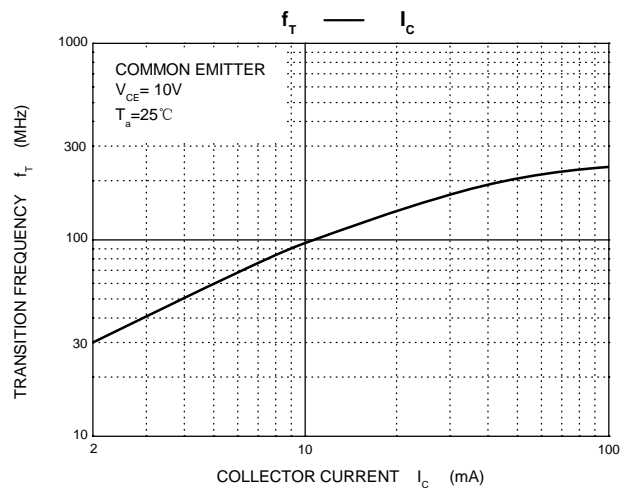
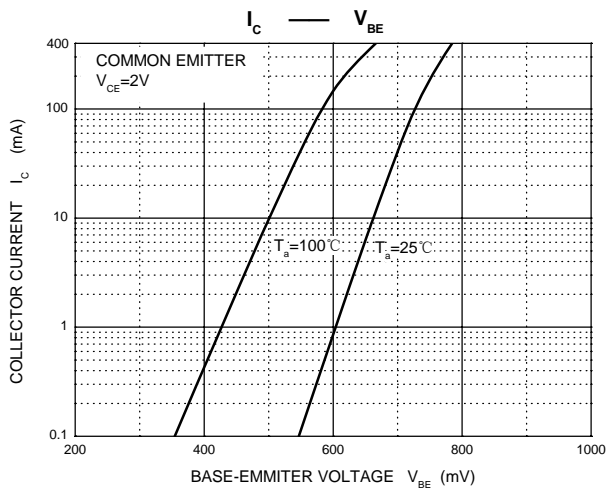
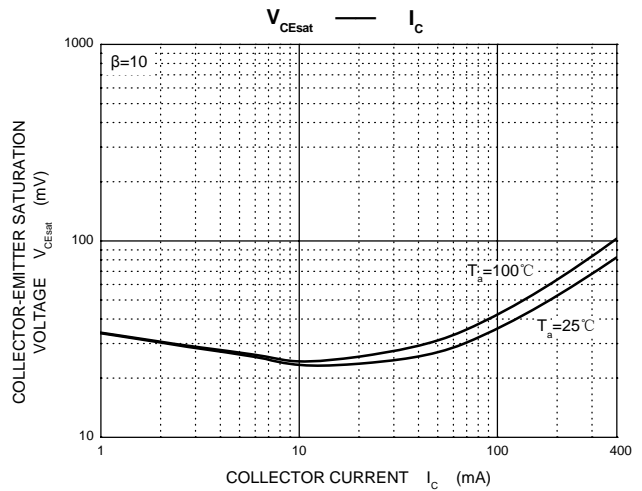
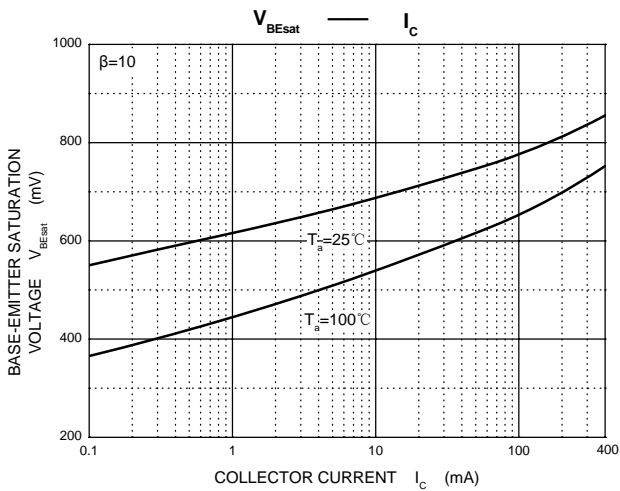
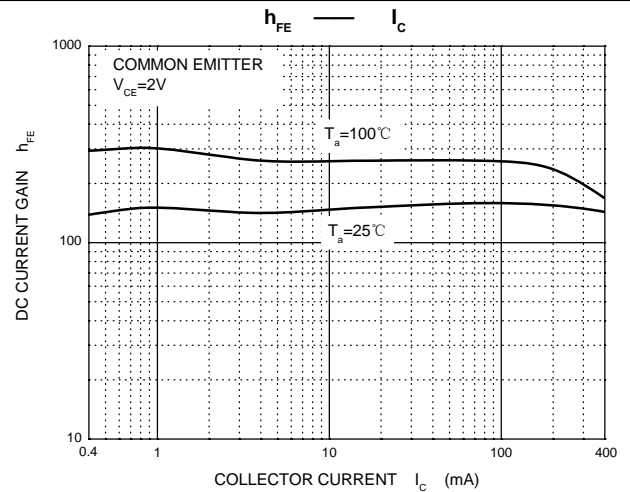
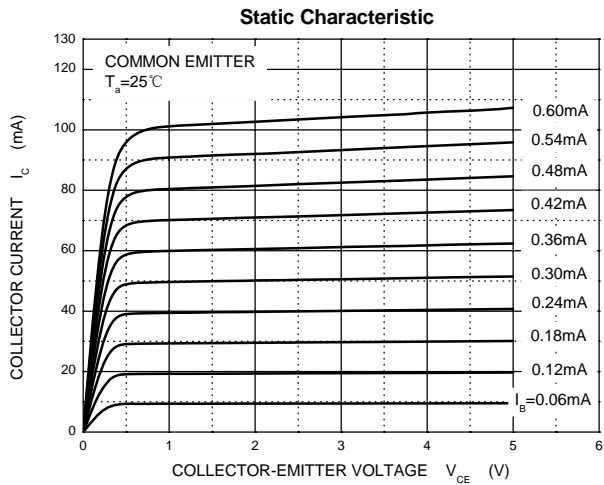
**ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CB0}$	$I_C=100\mu\text{A}$ , $I_E=0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CE0}$	$I_C=5\text{mA}$ , $I_B=0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EB0}$	$I_E=100\mu\text{A}$ , $I_C=0$	5			V
Collector cut-off current	$I_{CB0}$	$V_{CB}=50\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB}=5\text{V}$ , $I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}$ , $I_C=50\text{mA}$	70		240	
	$h_{FE(2)}$	$V_{CE}=2\text{V}$ , $I_C=200\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=200\text{mA}$ , $I_B=20\text{mA}$			0.4	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=2\text{V}$ , $I_C=5\text{mA}$	0.55		0.8	V
Transition frequency	$f_T$	$V_{CE}=10\text{V}$ , $I_C=10\text{mA}$		100		MHz

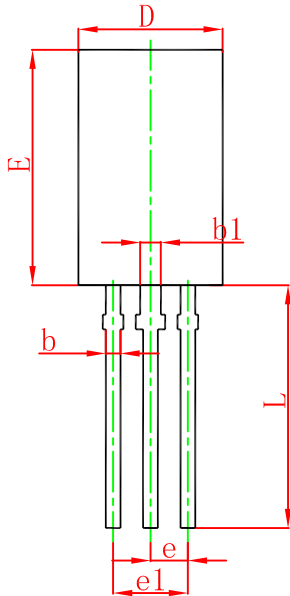
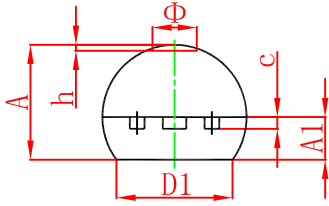
**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	O	Y
Range	70-140	120-240

# Typical Characteristics

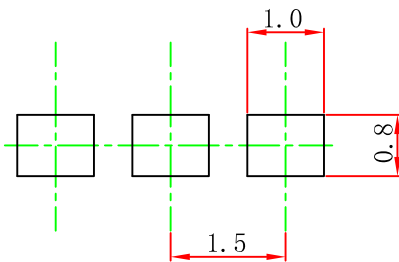


## TO-92MOD Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.800	5.000	0.189	0.197
A1	1.730	2.030	0.068	0.080
b	0.440	0.600	0.017	0.024
b1	0.940	1.100	0.037	0.043
c	0.350	0.450	0.014	0.018
D	5.900	6.100	0.232	0.240
D1	4.000		0.157	
E	8.500	8.700	0.335	0.343
e	1.500 TYP.		0.059 TYP.	
e1	2.900	3.100	0.114	0.122
L	13.800	14.200	0.543	0.559
$\Phi$		1.600		0.063
h	0.000	0.380	0.000	0.015

## TO-92MOD Suggested Pad Layout



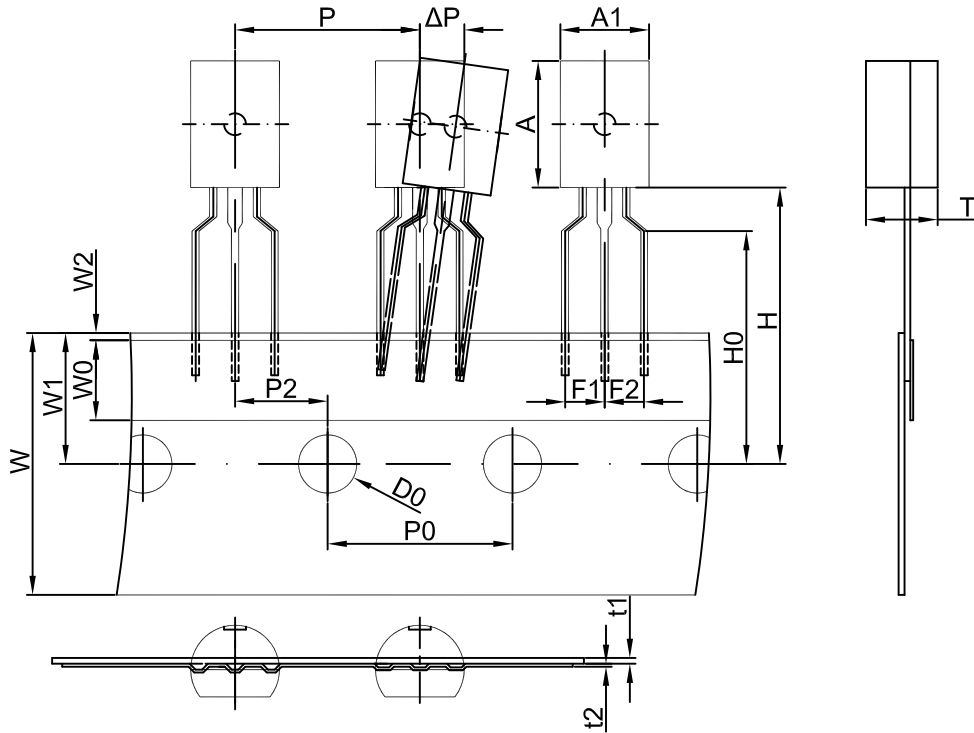
Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.

### NOTICE

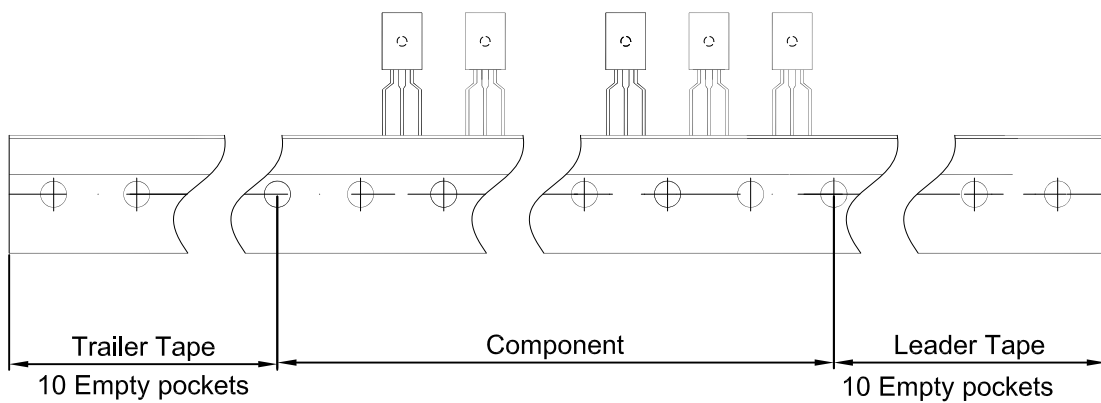
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# TO-92MOD PACKAGE TAPEING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
6.0	8.6	4.9	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92MOD	2000 pcs	333×245×43	20,000 pcs	573×404×266