



### Features

- Complementary NPN Type available (2N2907A)

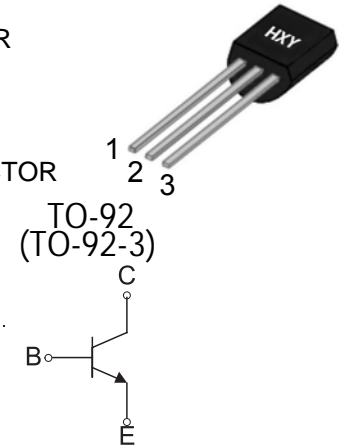
### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
2N2222A	TO-92(TO-92-3)	2N2222A	1000

1. EMITTER

2. BASE

3. COLLECTOR



### Maxmim Ratings (Ta=25 unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	75	V
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	0.6	A
$P_D$	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	$^{\circ}C / W$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}C$

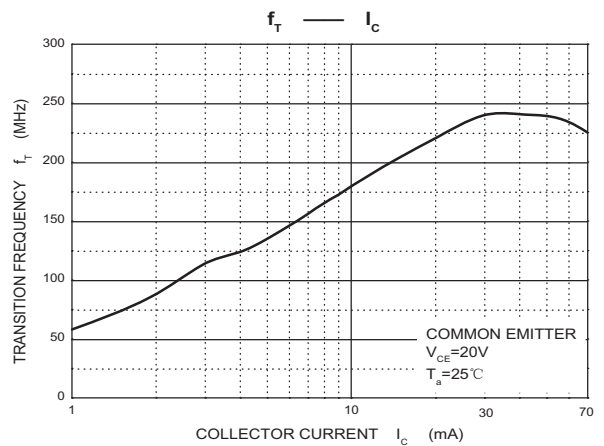
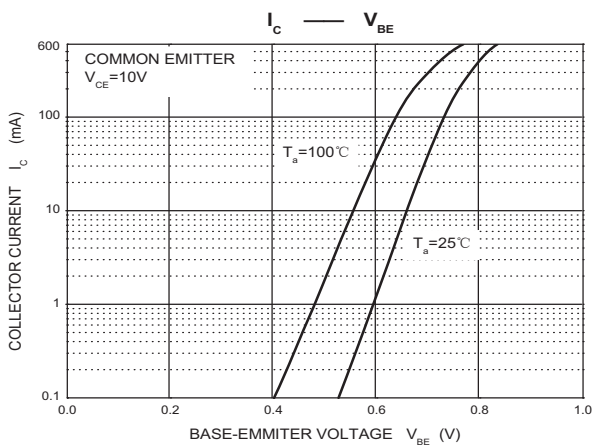
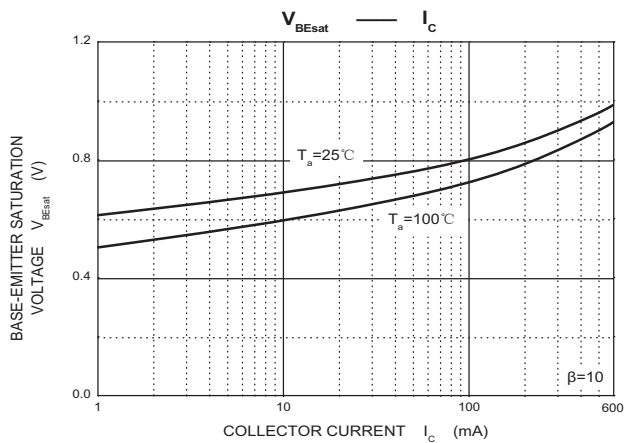
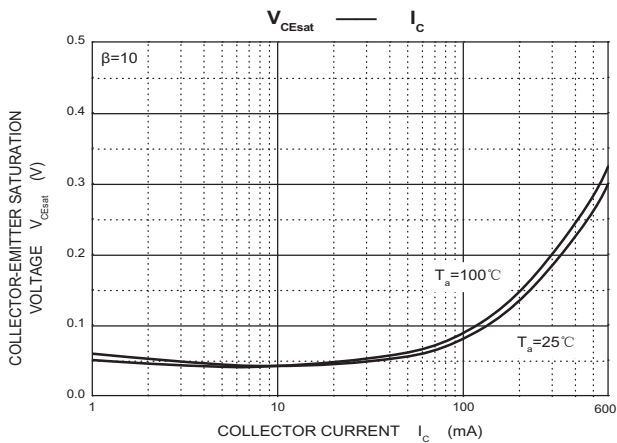
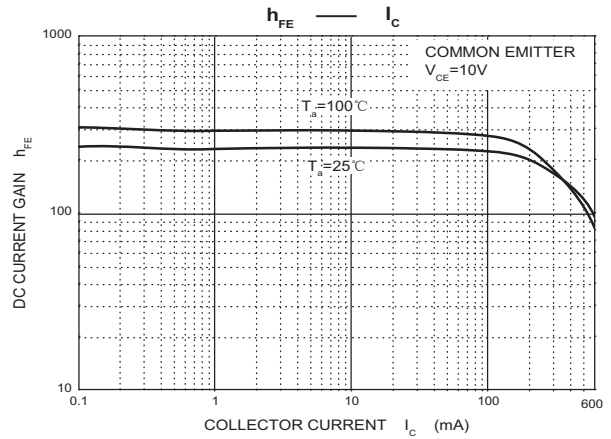
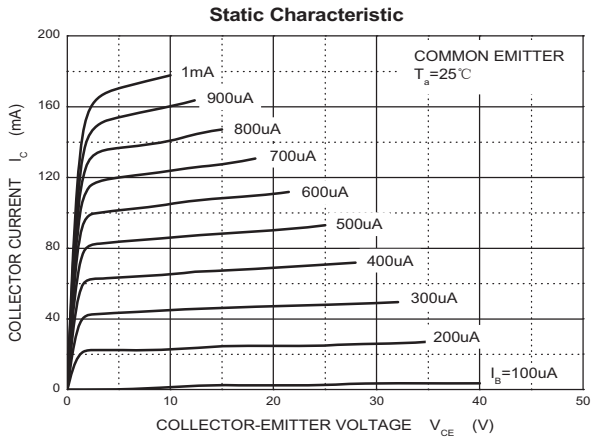
### Electrcal Characteristics (Ta=25 unless otherwise specified)

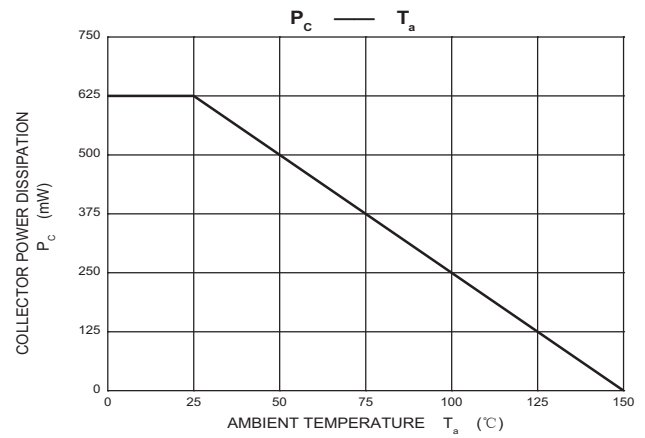
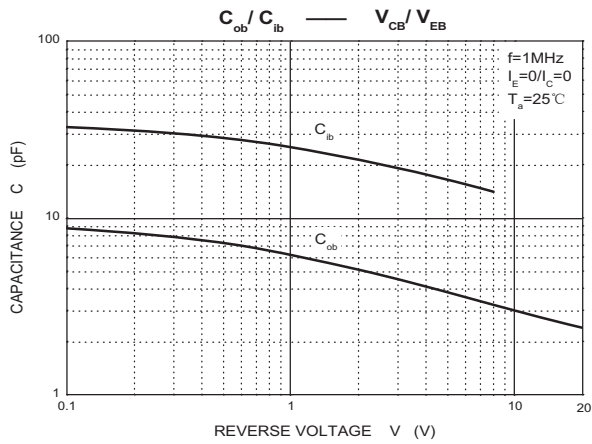
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 60V, I_E = 0$		10	nA
Collector cut-off current	$I_{CEX}$	$V_{CE} = 60V, V_{EB(off)} = 3V$		10	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 3V, I_C = 0$		100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = 10V, I_C = 150mA$	100	300	
	$h_{FE(2)}$	$V_{CE} = 10V, I_C = 0.1mA$	40		
	$h_{FE(3)}$	$V_{CE} = 10V, I_C = 500mA$	42		
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$ *	$I_C = 500mA, I_B = 50mA$		0.6	V
	$V_{CE(sat)(2)}$ *	$I_C = 150mA, I_B = 15mA$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$ *	$I_C = 500mA, I_B = 50mA$		1.2	V
Delay time	$t_d$	$V_{CC} = 30V, V_{EB(off)} = -0.5V,$ $I_C = 150mA, I_{B1} = 15mA$		10	nS
Rise time	$t_r$			25	nS
Storage time	$t_s$	$V_{CC} = 30V, I_C = 150mA, I_{B1} = I_{B2} = 15mA$		225	nS
Fall time	$t_f$			60	nS
Transition frequency	$f_T$	$V_{CE} = 20V, I_C = 20mA, f = 100MHz$	300		MHz

\* pulse test

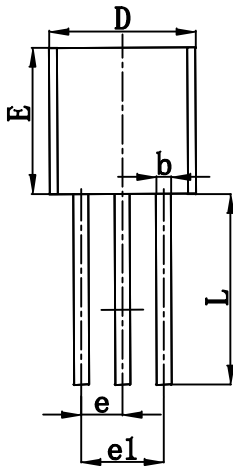
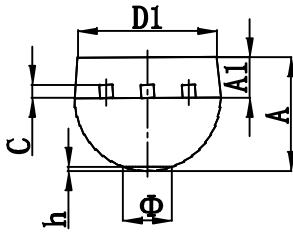


### Typical Characteristics





### TO-92(TO-92-3) Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
$\Phi$		1.600		0.063
h	0.000	0.380	0.000	0.015



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