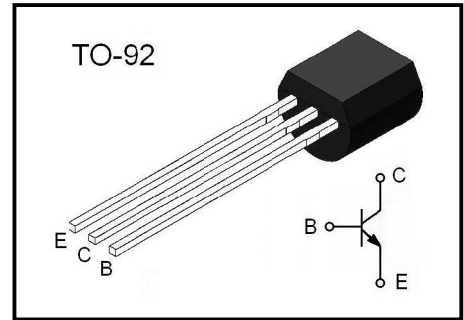


**Plastic-Encapsulate Transistors**  
**TRANSISTOR (NPN)**

**FEATURES**

- Power dissipation



**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Value	unit
Collector-Base Voltage	$V_{CB0}$	40	V
Collector-Emitter Voltage	$V_{CE0}$	30	V
Emitter-Base Voltage	$V_{EB0}$	6	V
Collector Current -Continuous	$I_C$	3	A
Collector Power Dissipation	$P_D$	625	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

**ELECTRICAL CHARACTERISTICS**

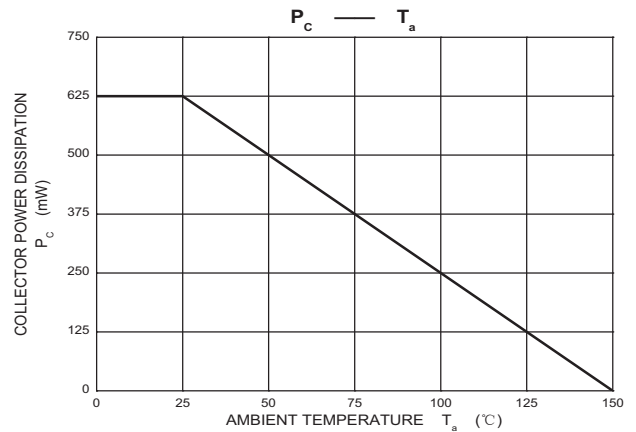
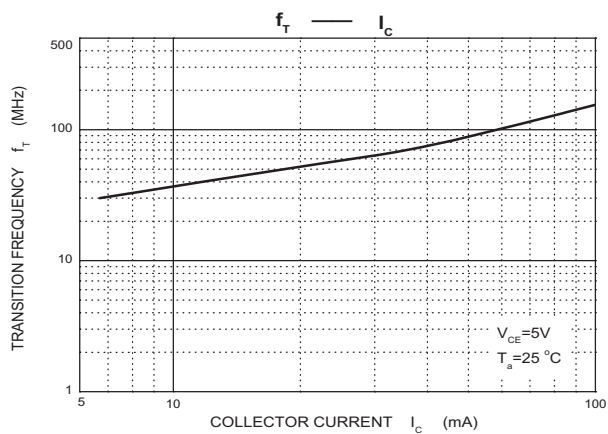
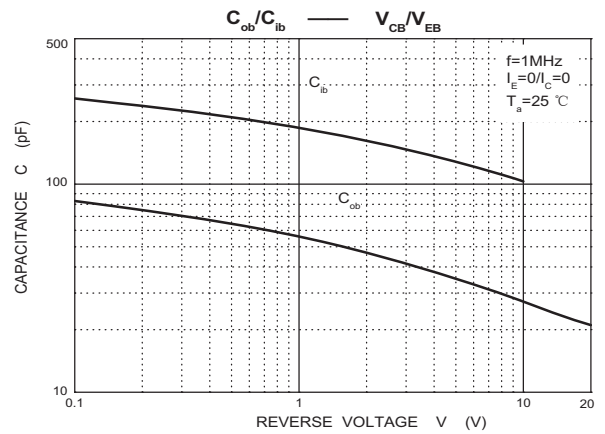
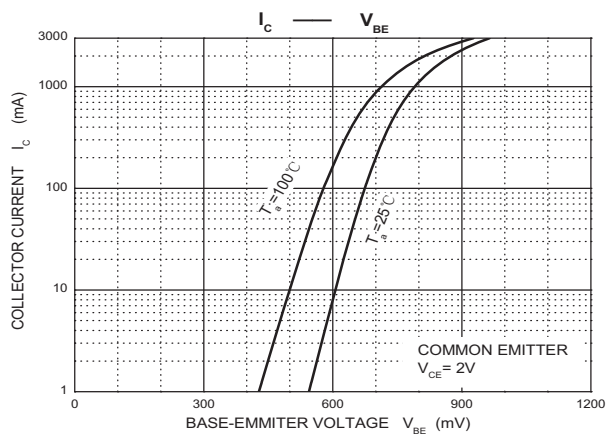
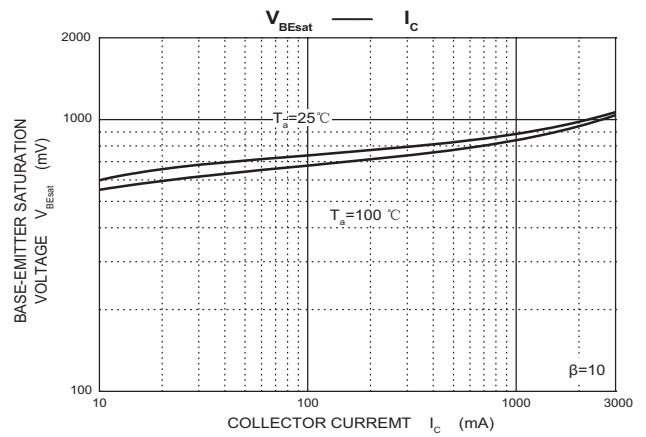
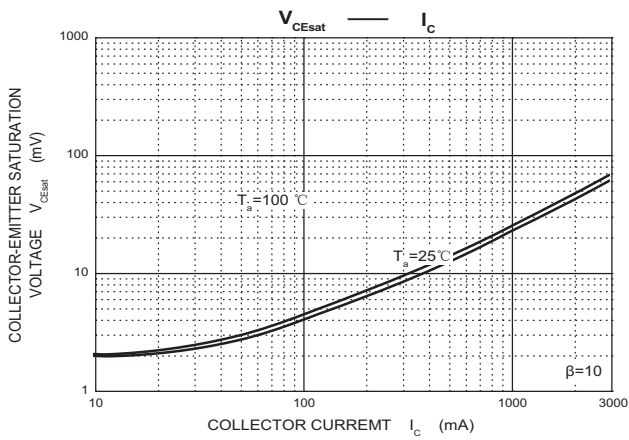
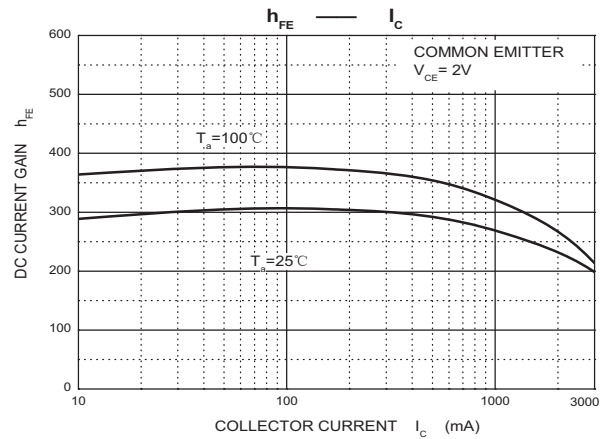
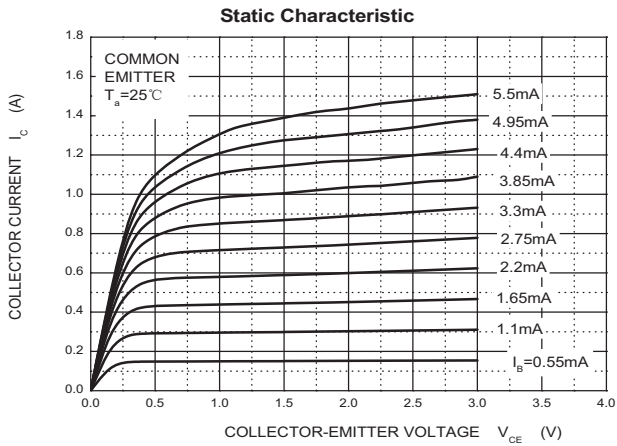
25°C unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	unit
Collector-base breakdown voltage	$I_C = 100 \mu A, I_E = 0$	$V_{(BR)CBO}$	40			V
Collector-emitter breakdown voltage	$I_C = 10mA, I_B = 0$	$V_{(BR)CEO}$	30			V
Emitter-base breakdown voltage	$I_E = 100 \mu A, I_C = 0$	$V_{(BR)EBO}$	6			V
Collector cut-off current	$V_{CB} = 40V, I_E = 0$	$I_{CBO}$			1	$\mu A$
Collector cut-off current	$V_{CE} = 30V, I_B = 0$	$I_{CEO}$			10	$\mu A$
Emitter cut-off current	$V_{EB} = 6V, I_C = 0$	$I_{EBO}$			1	$\mu A$
DC current gain	$V_{CE} = 2V, I_C = 1A$	$h_{FE}$	60		400	
Collector-emitter saturation voltage	$I_C = 2A, I_B = 0.2A$	$V_{CE(sat)}$			0.5	V
Base-emitter saturation voltage	$I_C = 2A, I_B = 0.2A$	$V_{BE(sat)}$			1.5	V
Transition frequency	$V_{CE} = 5V, I_C = 0.1A$ $f = 10MHz$	$f_T$	50	80		MHz

**CLASSIFICATION OF  $h_{FE}$**

Rank	D882S-R	D882S-O	D882S-Y	D882S-GR
Range	60-120	100-200	160-320	200-400

Typical Characteristics



**Package Dimensions**

**TO-92**

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

Package	Packing Method	Pack ountity
TO-92	Bulk	1000pcs/Bag
TO-92	Tape	2000pcs/Box

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