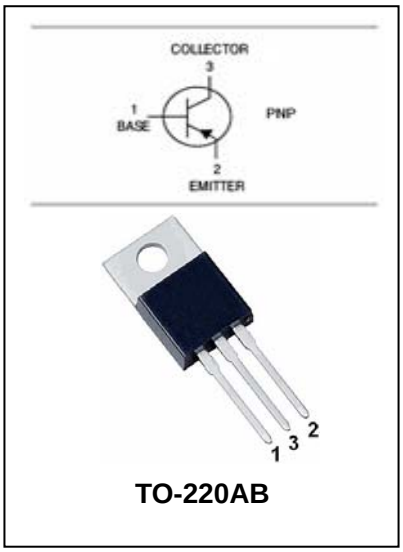
PNP Epitaxial Silicon Transistor 2SA1012

FEATURES

- Low Collector Saturation Voltage.
  $V_{CE(sat)}$=-0.4V(Max.)at I_C=-3A
- Complements the 2SC2562.
- High Speed Switching Time:t_{stg}=1.0μs(Typ.)

Lead-free



TO-220AB

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-5	A
P_C	Collector Dissipation	2	W
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

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ELECTRICAL CHARACTERISTICS Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-60			V
Collector-emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-50			V
Emitter-base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=-50V,I_E=0			-1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V,I_C=0			-1	μA
DC Current Gain	h_{FE}	V_{CE}=-1V,I_C=-1A V_{CE}=-1V,I_C=-3A	70 30		240	
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-3A, I_B=-0.15A		-0.2	-0.4	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-3A, I_B=-0.15A		-0.9	-1.2	V
Transition Frequency	f_T	V_{CE}=-4V, I_C=-1A		60		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz		170		pF

CLASSIFICATION OF h_{FE}

Range	O	Y
Marking	70-140	120-240

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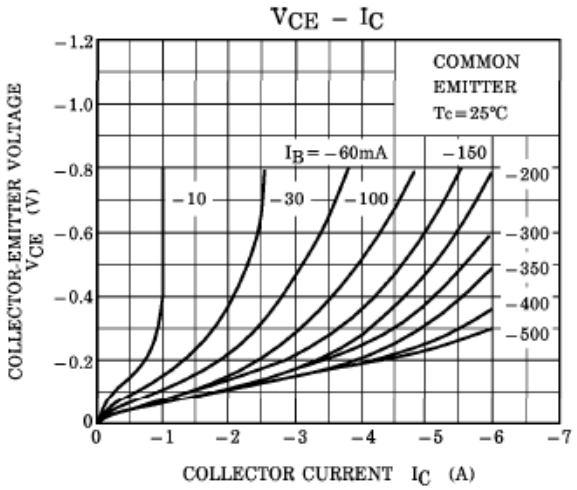
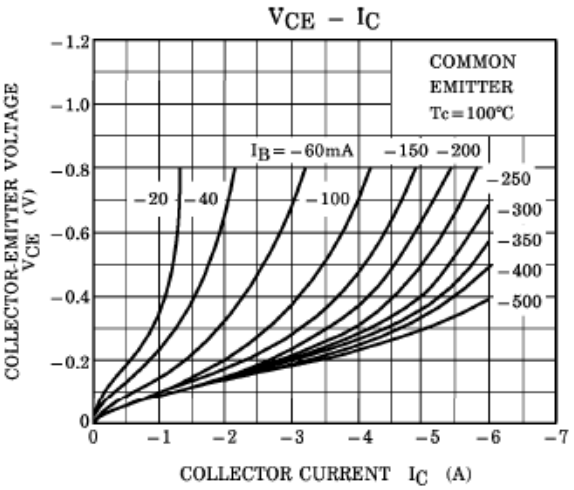
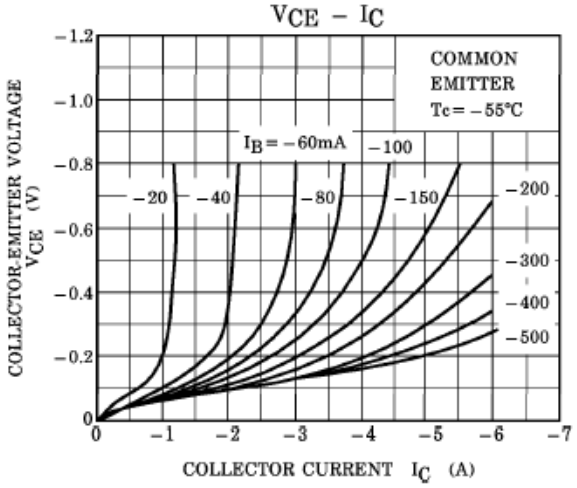
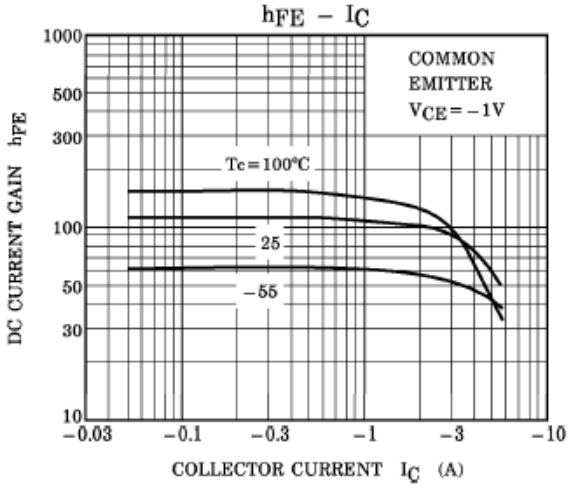
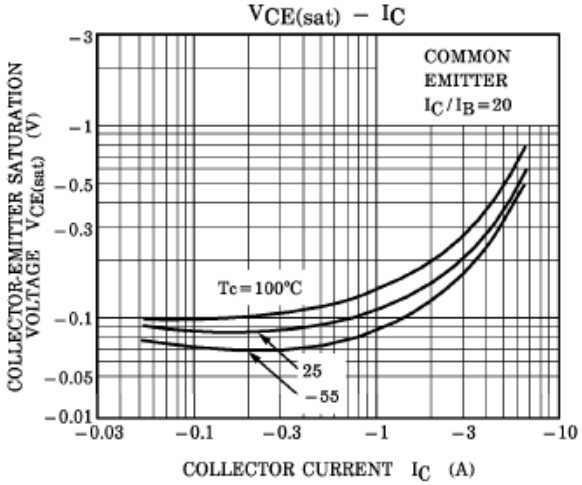
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

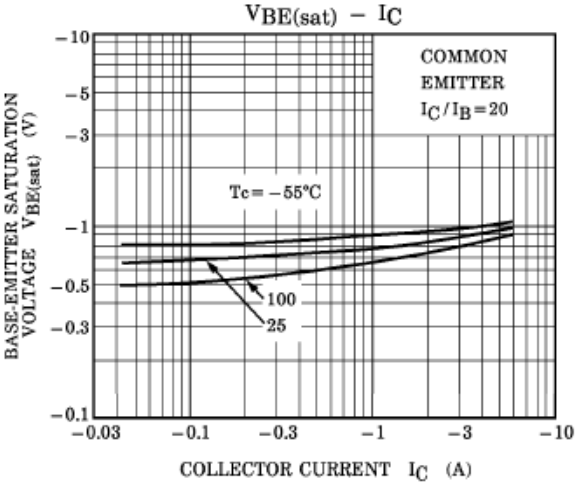












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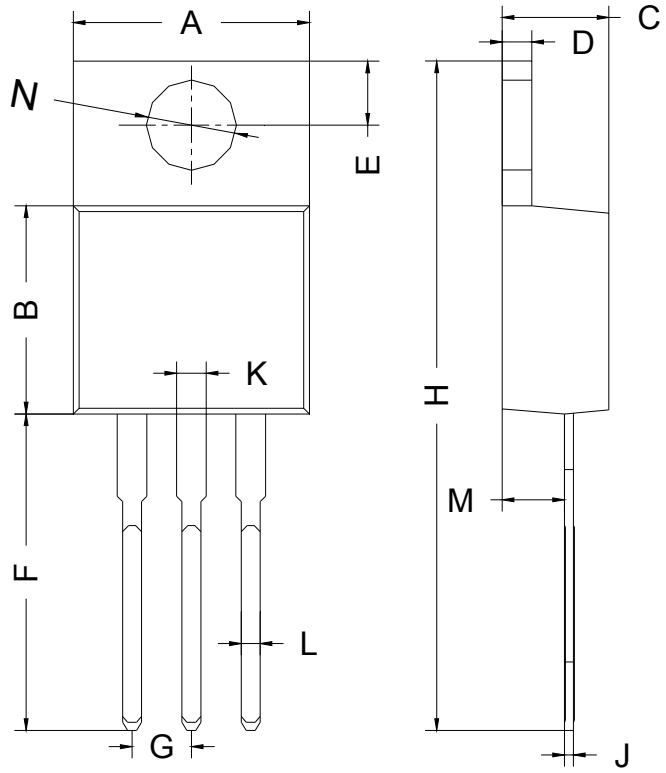
PACKAGE OUTLINE

Plastic surface mounted package TO-220AB



TO-220AB		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	2.44	2.64
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		