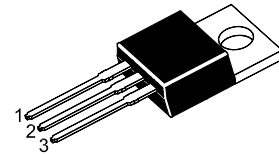


2SA1012

PNP Silicon Epitaxial Planar Transistor

for high current switching applications.

The transistor is subdivided into two group, O and Y, according to its DC current gain.



1.Base 2.Collector 3.Emitter

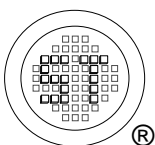
TO-220 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	5	A
Power Dissipation	P_{tot}	25	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

Characteristics at $T_{amb} = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 1\text{ A}$ at $-V_{CE} = 1\text{ V}$, $-I_C = 3\text{ A}$	O Y h _{FE}	70 120 30	- - -	140 240 -	- - -	
	Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	50	-	-	V
	Collector Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	1	μA
Emitter Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	1	μA	
Collector Emitter Saturation Voltage at $-I_C = 3\text{ A}$, $-I_B = 0.15\text{ A}$	$-V_{CE(sat)}$	-	-	0.4	V	
Base Emitter Saturation Voltage at $-I_C = 3\text{ A}$, $-I_B = 0.15\text{ A}$	$-V_{BE(sat)}$	-	-	1.2	V	
Transition Frequency at $-V_{CE} = 4\text{ V}$, $-I_C = 1\text{ A}$	f_T	-	60	-	MHz	
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	170	-	pF	

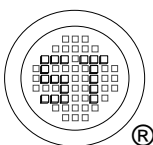
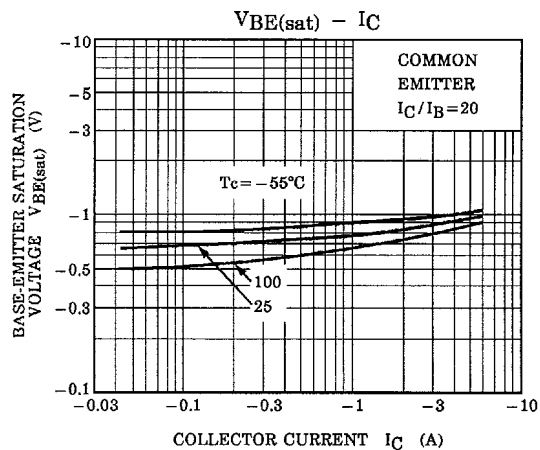
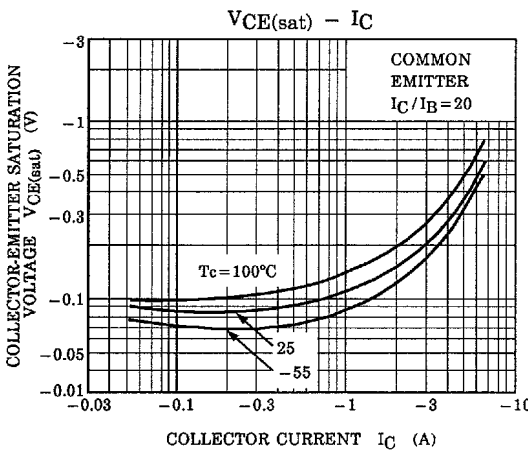
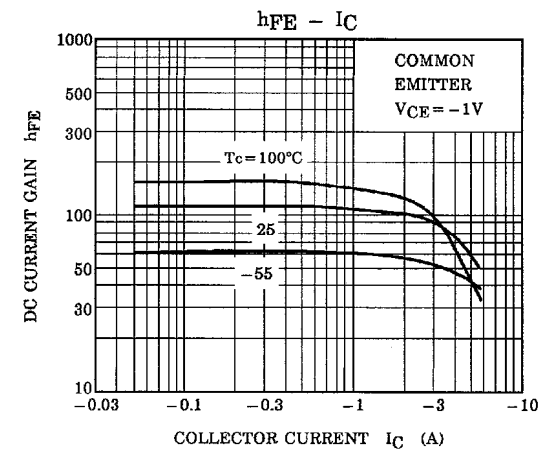
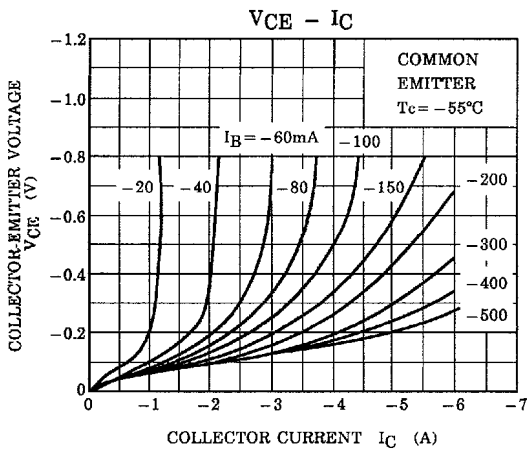
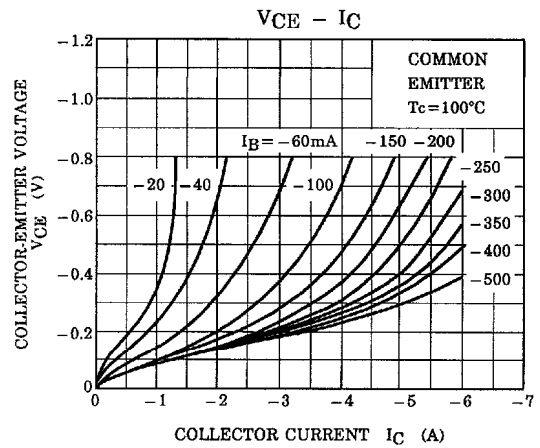
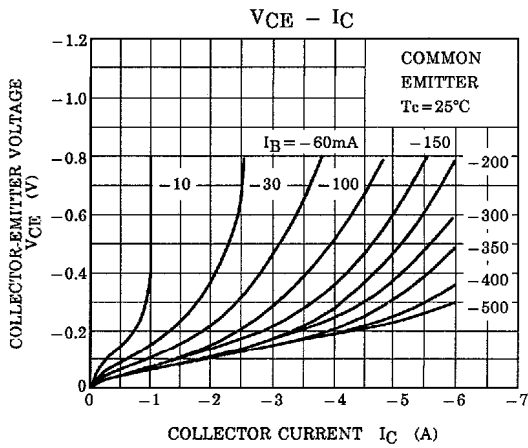


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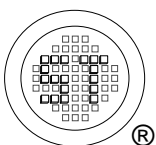
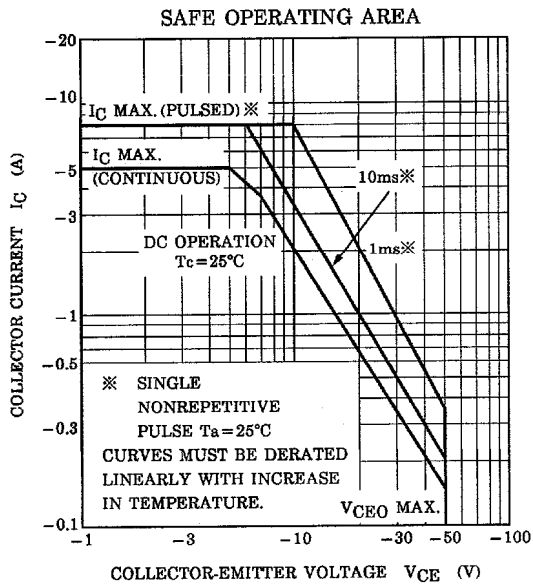
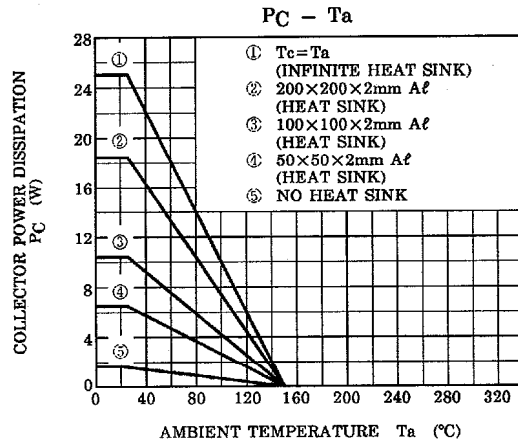
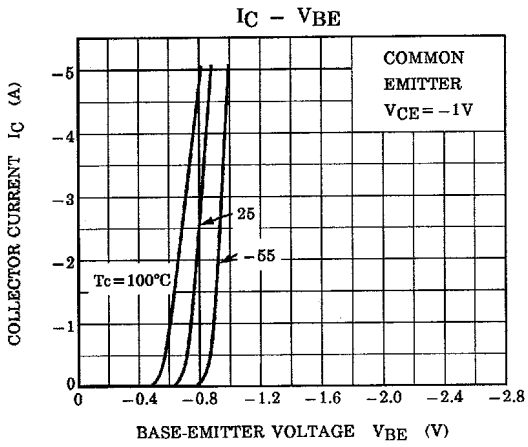
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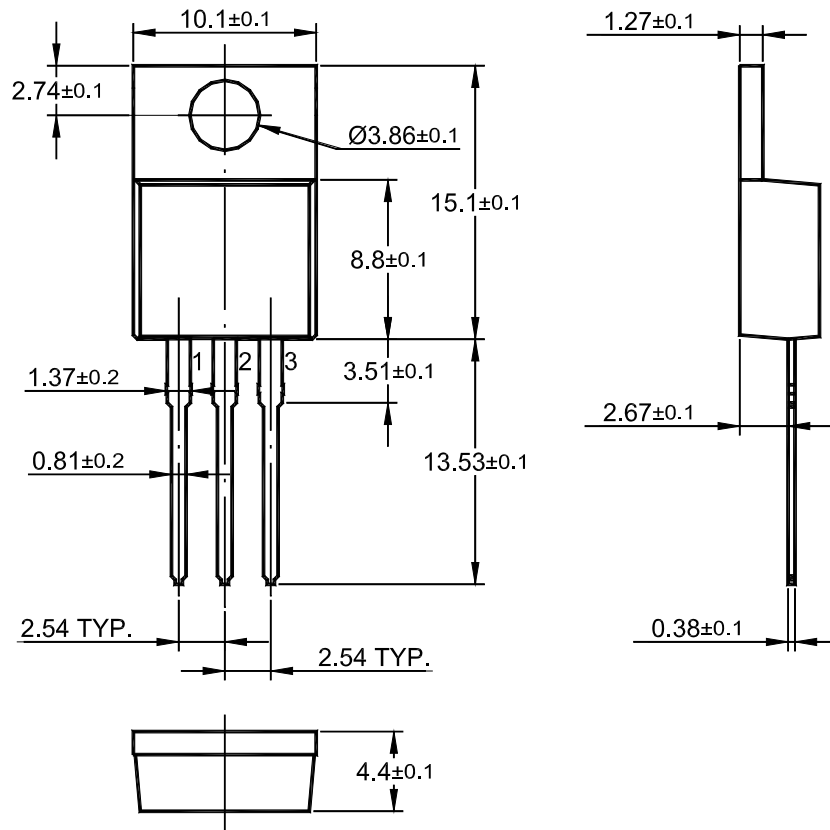
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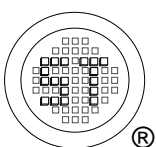
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2SA1012

TO-220 PACKAGE OUTLINE



Dimensions in mm



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