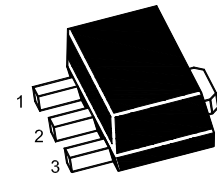


ST 2SA1213U

PNP Silicon Epitaxial Planar Transistor

for power amplifier and power switching applications

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



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

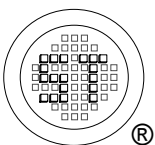
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	50	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	50	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	2	A
Base Current	$-I_{\text{B}}$	0.4	A
Total Power Dissipation	P_{tot}	0.5 1 ¹⁾	W
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ When mounted on a 250 mm² X 0.8 t ceramic substrate.

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 2 \text{ V}$, $-I_{\text{C}} = 500 \text{ mA}$	h_{FE}	70	-	140	-
Current Gain Group O	h_{FE}	120	-	240	-
Current Gain Group Y	h_{FE}	20	-	-	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 50 \text{ V}$	$-I_{\text{CBO}}$	-	-	100	nA
Emitter Base Cutoff Current at $-V_{\text{EB}} = 5 \text{ V}$	$-I_{\text{EBO}}$	-	-	100	nA
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 10 \text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	50	-	-	V
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 1 \text{ A}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{CE(sat)}}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_{\text{C}} = 1 \text{ A}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{BE(sat)}}$	-	-	1.2	V
Transition Frequency at $-V_{\text{CE}} = 2 \text{ V}$, $-I_{\text{C}} = 500 \text{ mA}$	f_{T}	-	120	-	MHz
Collector Output Capacitance at $-V_{\text{CB}} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	40	-	pF
Turn-on Time at $-V_{\text{CC}} = 30 \text{ V}$, $-I_{\text{B1}} = I_{\text{B2}} = 50 \text{ mA}$	t_{on}	-	0.1	-	μs
Storage Time at $-V_{\text{CC}} = 30 \text{ V}$, $-I_{\text{B1}} = I_{\text{B2}} = 50 \text{ mA}$	t_{stg}	-	1	-	μs
Fall Time at $-V_{\text{CC}} = 30 \text{ V}$, $-I_{\text{B1}} = I_{\text{B2}} = 50 \text{ mA}$	t_{f}	-	0.1	-	μs



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ISO 9001:2008
Certificate No. 16073009



ISO 14001:2004
Certificate No. 7116



ISO 9001:2008
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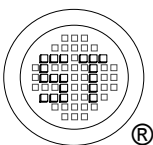
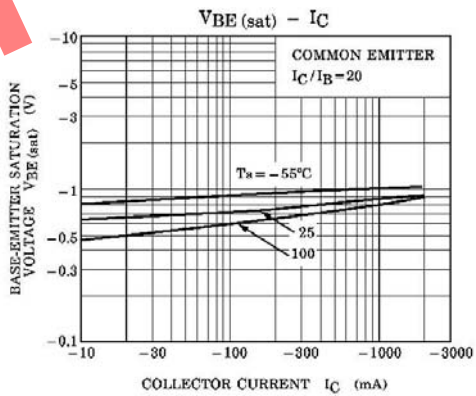
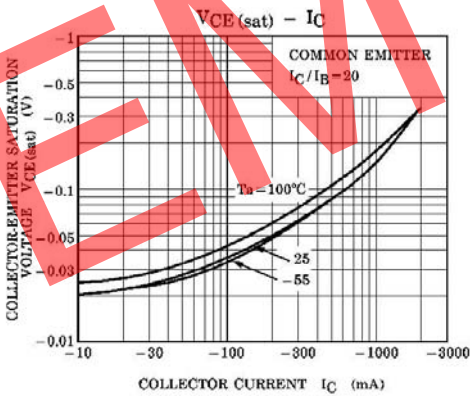
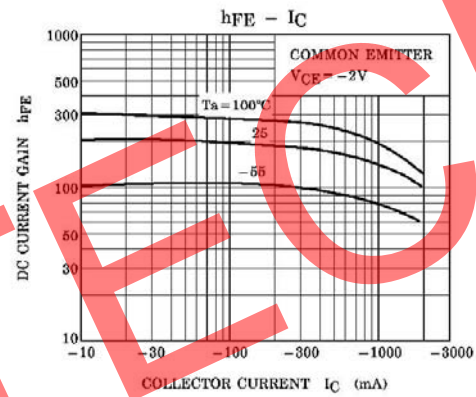
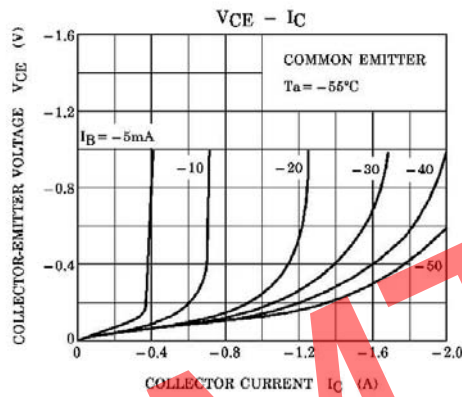
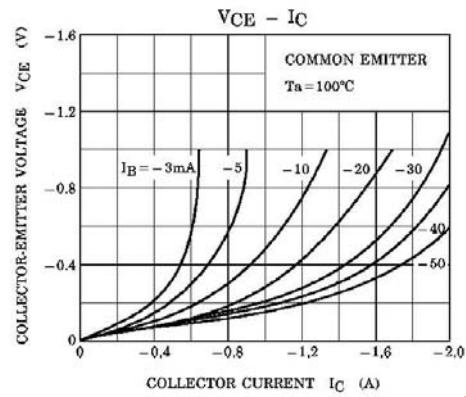
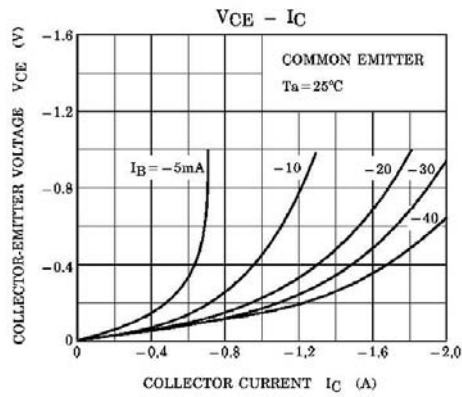


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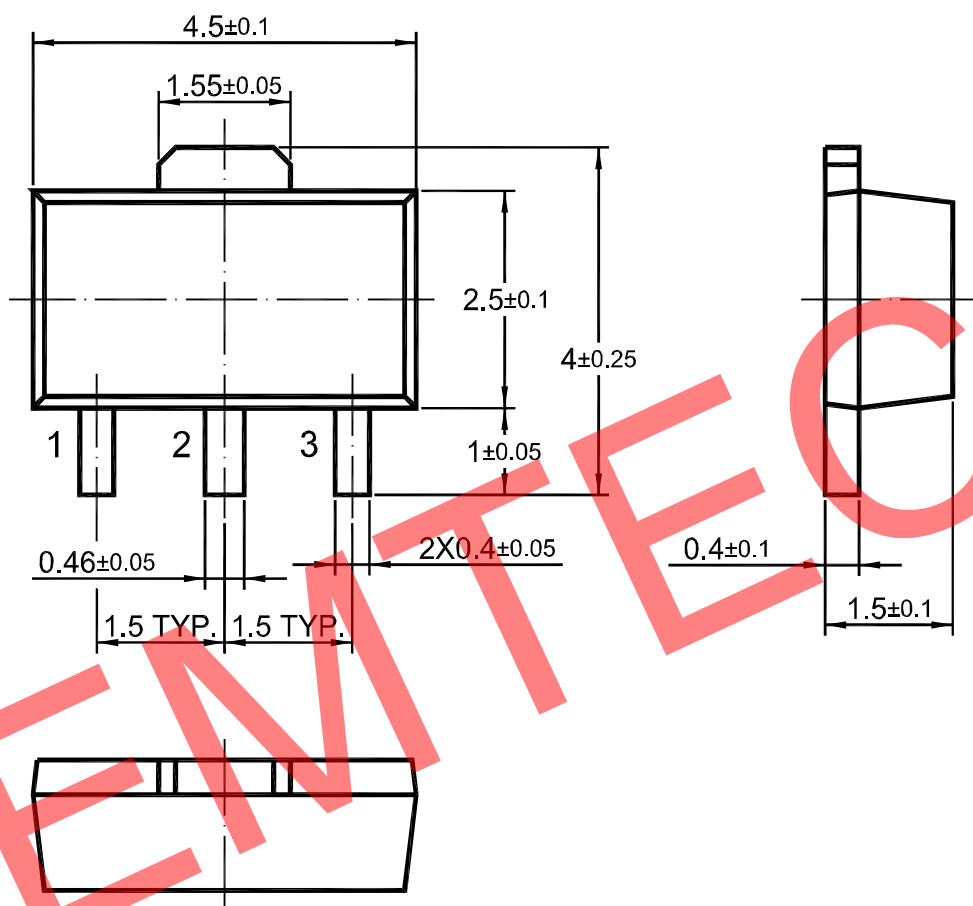
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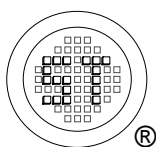
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ST 2SA1213U

SOT-89 PACKAGE OUTLINE



Dimensions in mm



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