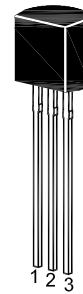


# 2SA200

## PNP Silicon Epitaxial Planar Transistor

for general purpose and switching amplifier

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



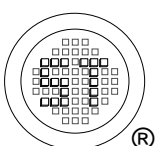
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

### 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	$-I_C$	500	mA
Base Current	$-I_B$	100	mA
Power Dissipation	$P_{tot}$	625	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

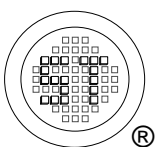
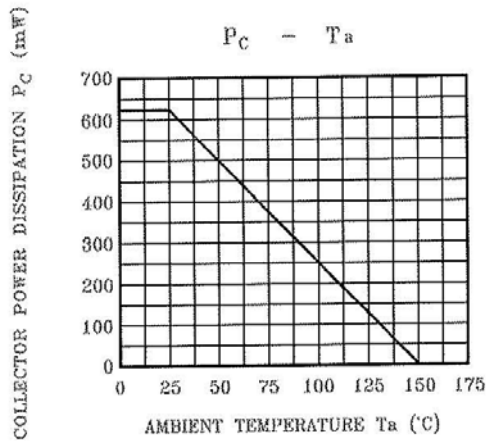
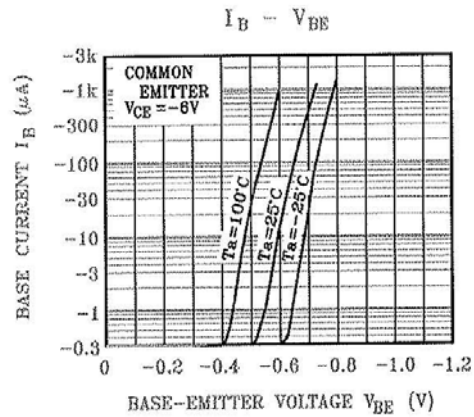
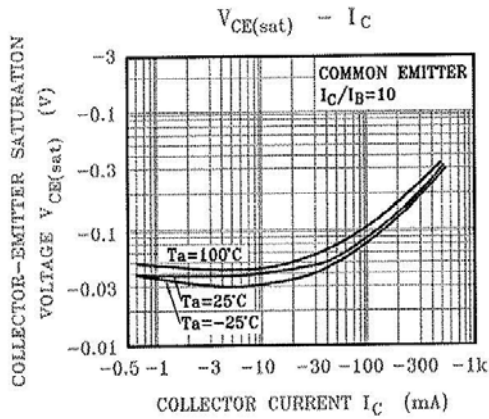
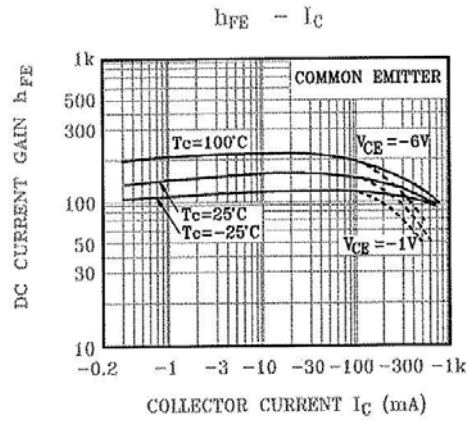
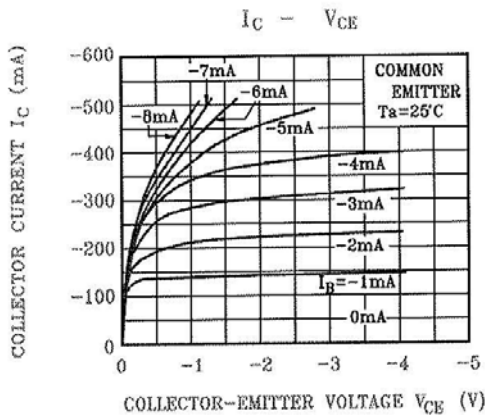
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 2\text{ V}$ , $-I_C = 50\text{ mA}$ at $-V_{CE} = 6\text{ V}$ , $-I_C = 400\text{ mA}$	Current Gain Group O Y	$h_{FE}$	70	-	140	-
		$h_{FE}$	120	-	240	-
		$h_{FE}$	25	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	100	nA	
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	100	nA	
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$ , $-I_B = 10\text{ mA}$	$-V_{CE(sat)}$	-	-	0.25	V	
Base Emitter on Voltage at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$	$-V_{BE(on)}$	-	-	1	V	
Transition Frequency at $-V_{CE} = 6\text{ V}$ , $-I_C = 20\text{ mA}$	$f_T$	-	200	-	MHz	
Collector Output Capacitance at $-V_{CB} = 6\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	13	-	pF	



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ISO/TS 16949 : 2009 Certificate No. 160713000  
 ISO 14001 : 2004 Certificate No. 7116  
 ISO 9001 : 2008 Certificate No. 50791410  
 BS OHSAS 18001 : 2007 Certificate No. 7116  
 IECQ QC 080000 Certificate No. PRC-HSPM-1463-1