

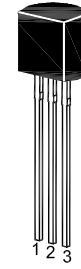
# 2SC3199

## NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

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

On special request, these transistors can be manufactured in different pin configurations.



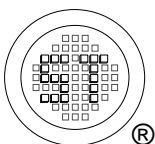
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	50	V
Collector Emitter Voltage	$V_{CEO}$	50	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Emitter Current	$I_E$	-150	mA
Power Dissipation	$P_{tot}$	400	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

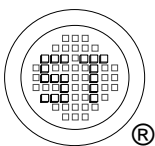
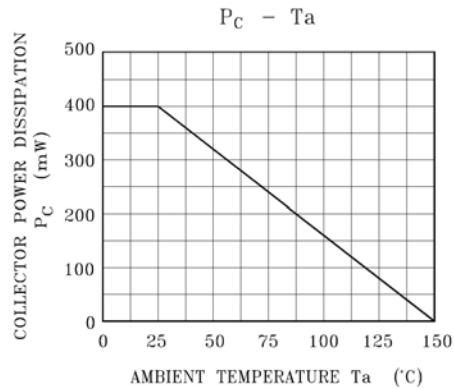
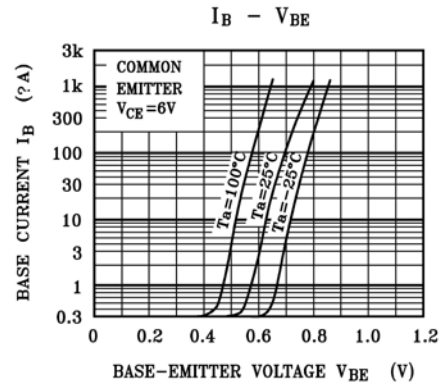
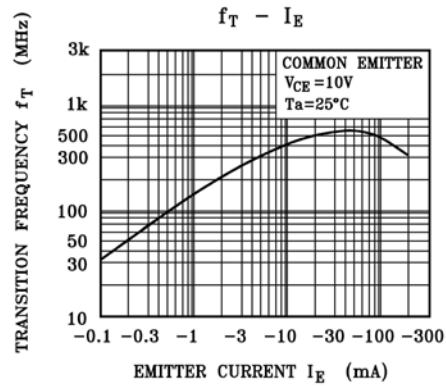
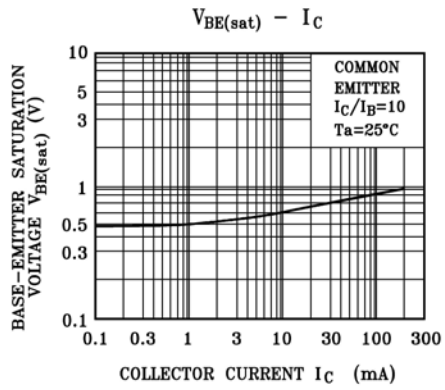
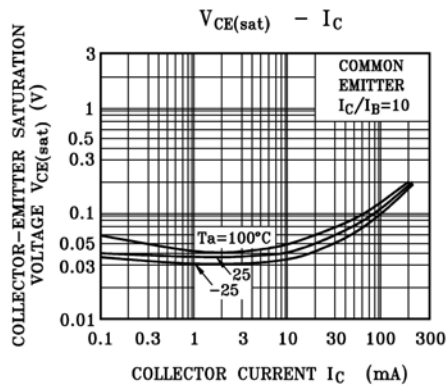
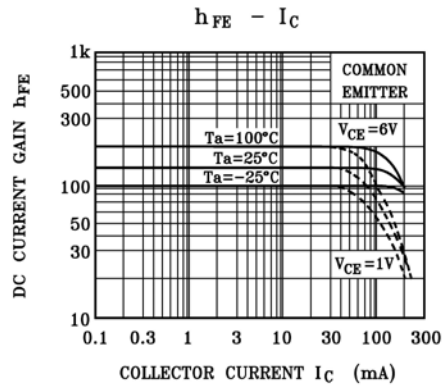
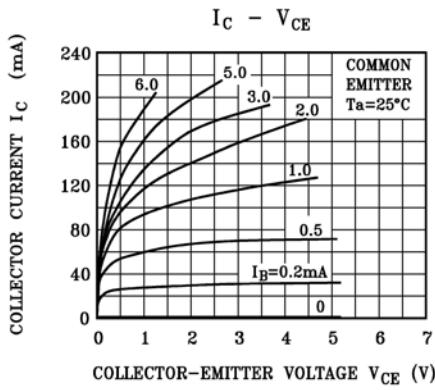
Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 6\text{ V}$ , $I_C = 2\text{ mA}$ Current Gain Group	O	70	140	-
	Y	120	240	-
	G	200	400	-
	L	350	700	-
Collector Base Cutoff Current at $V_{CB} = 50\text{ V}$	$I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	$I_{EBO}$	-	100	nA
Collector Emitter Saturation Voltage at $I_C = 100\text{ mA}$ , $I_B = 10\text{ mA}$	$V_{CE(sat)}$	-	0.25	V
Transition Frequency at $V_{CE} = 10\text{ V}$ , $I_C = 1\text{ mA}$	$f_T$	80	-	MHz
Collector Output Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	3.5	pF



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ISO/TS 16949 : 2009 Certificate No. 160713060  
 ISO14001 : 2004 Certificate No. 71116  
 ISO 9001 : 2008 Certificate No. 50715410  
 BS-OHSAS 18001 : 2007 Certificate No. 71116  
 IECQ QC 080000 Certificate No. PRC-16294-1681



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