

SANYO

No.1060B

2SA1249/2SC3117

PNP/NPN Epitaxial Planar Silicon Transistors

160V/1.5A Switching Applications**Uses**

- Color TV sound output, converters, inverters

Features

- High breakdown voltage
- Large current capacity
- Adoption of MBIT process

(): 2SA1249

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

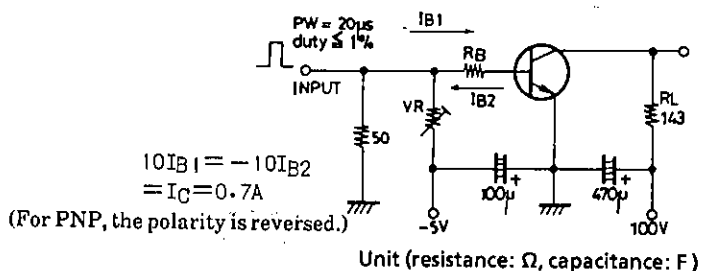
			unit
Collector-to-Base Voltage	V_{CB0}	(-)180	V
Collector-to-Emitter Voltage	V_{CE0}	(-)160	V
Emitter-to-Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)1.5	A
Collector Current (Pulse)	I_{CP}	(-)2.5	A
Collector Dissipation	P_C	1	W
		10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

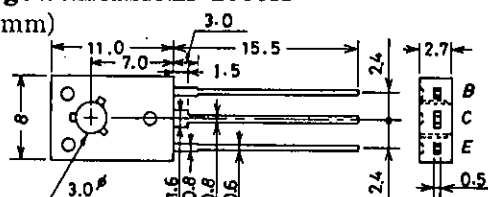
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)120\text{V}, I_E = 0$			(-)1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4\text{V}, I_C = 0$			(-)1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)5\text{V}, I_C = (-)100\text{mA}$	100*		400*	
	$h_{FE(2)}$	$V_{CE} = (-)5\text{V}, I_C = (-)10\text{mA}$	90*			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$		120		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(22)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$		(-0.2)(-0.5)		V
				0.13 0.45		
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$		(-)0.85(-)1.2		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-)180			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-)160			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu\text{A}, I_C = 0$	(-)6			V
Turn-ON Time	t_{on}	See specified Test Circuit.		0.04		μs
Storage Time	t_{stg}	See specified Test Circuit.		(0.7)1.2		μs
Fall Time	t_f	See specified Test Circuit.		(0.04)0.08		μs

*: The 2SA1249/2SC3117 are classified by 100mA h_{FE} as follows:

100 R 200	140 S 280	200 T 400
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Switching Time Test Circuit**Package Dimensions 2009A**

(unit: mm)



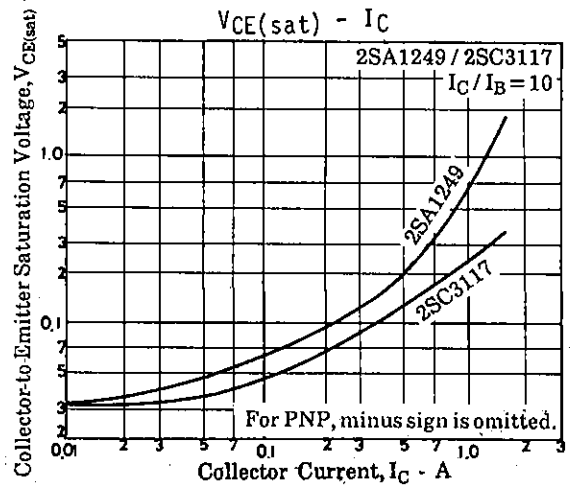
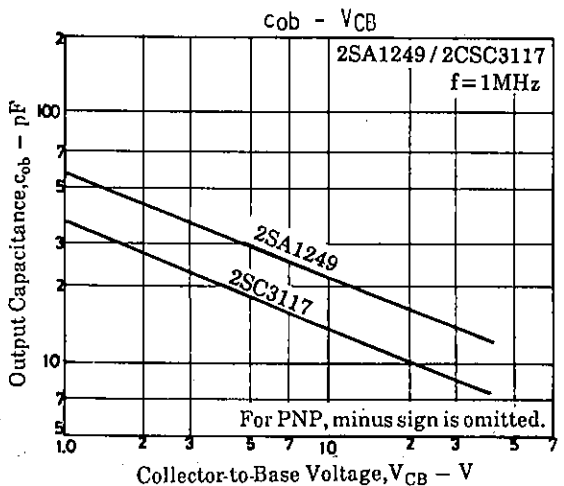
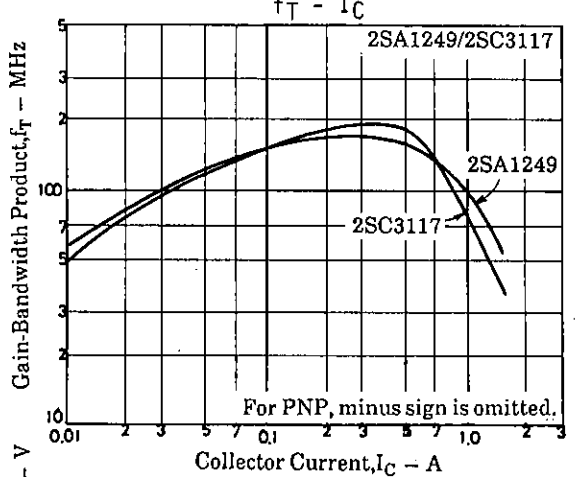
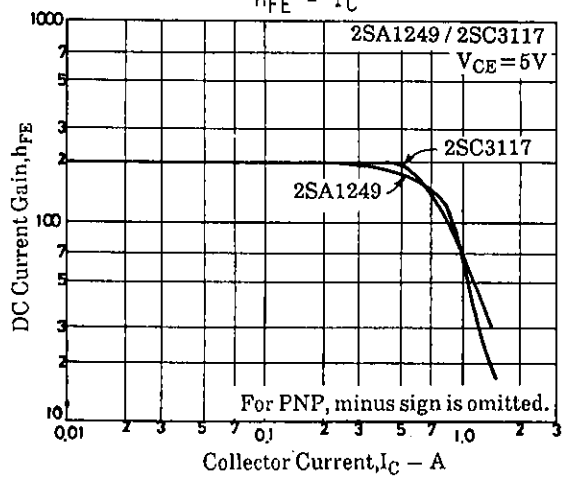
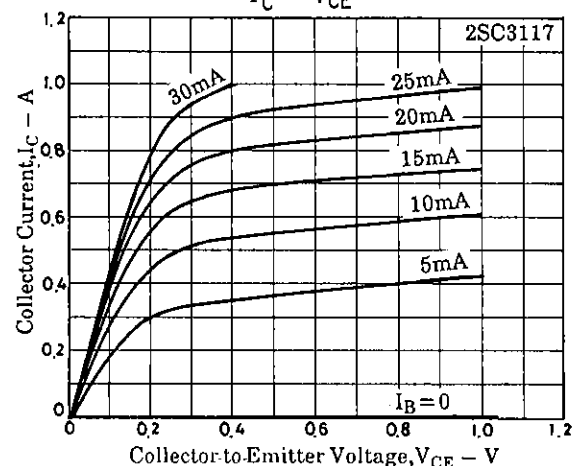
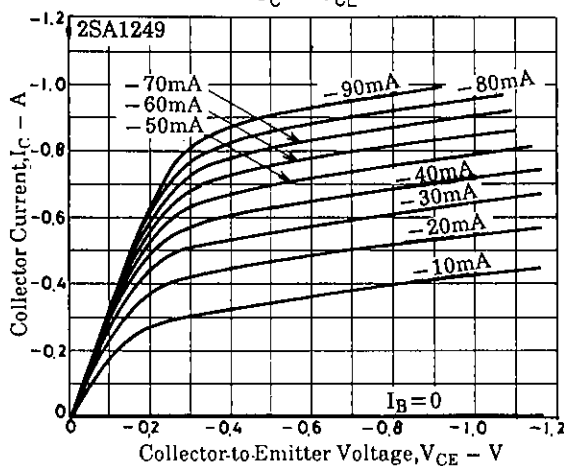
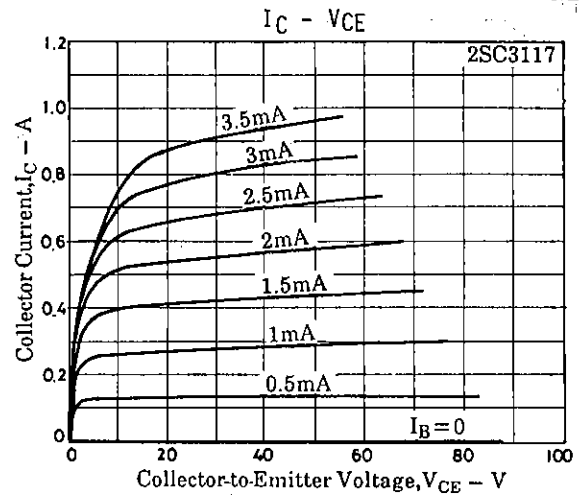
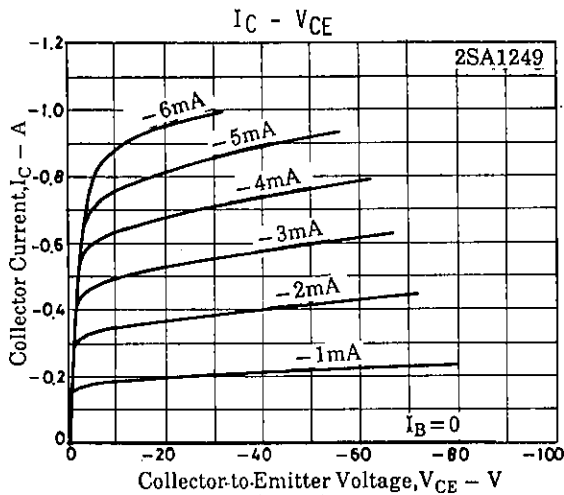
JEDEC: TO-126

B: Base
C: Collector
E: Emitter

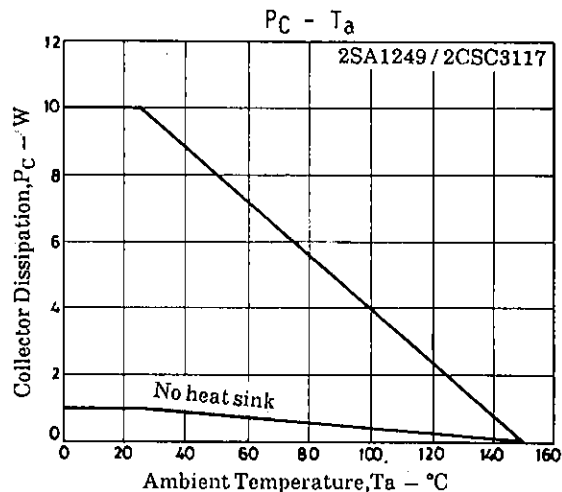
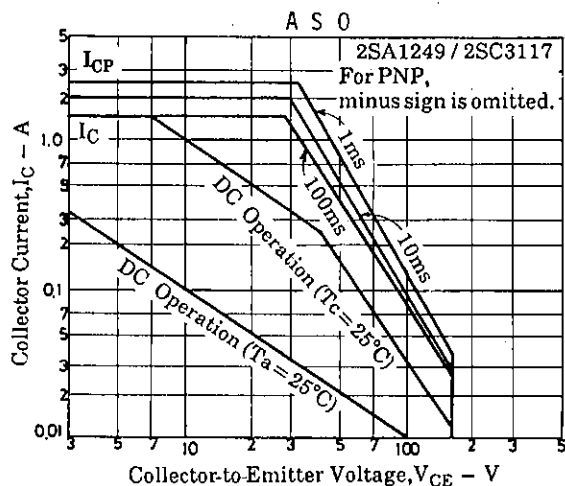
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