

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 Ta = 25°C

			unit
Collector-to-Base Voltage	V _{CB0}	(-)180	V
Collector-to-Emitter Voltage	V _{CE0}	(-)160	V
Emitter-to-Base Voltage	V _{EBO}	(-)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	°C
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°C

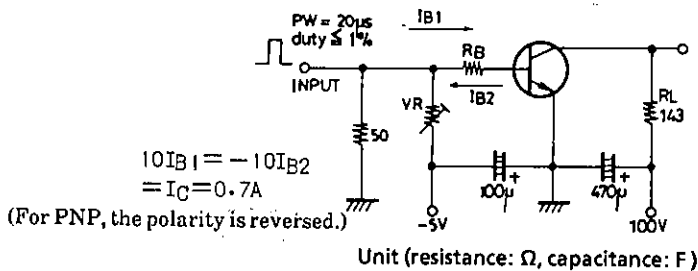
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} = (-)120V, I _E = 0			(-)1.0	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} = (-)4V, I _C = 0			(-)1.0	μA
DC Current Gain	h _{FE(1)}	V _{CE} = (-)5V, I _C = (-)100mA	100*		400*	
	h _{FE(2)}	V _{CE} = (-)5V, I _C = (-)10mA	90*			
Gain-Bandwidth Product	f _T	V _{CE} = (-)10V, I _C = (-)50mA		120		MHz
Output Capacitance	C _{ob}	V _{CB} = (-)10V, f = 1MHz		(22)		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)500mA, I _B = (-)50mA	(-0.2)	(-0.5)		V
			0.13	0.45		
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)500mA, I _B = (-)50mA	(-)0.85	(-)1.2		V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)10μA, I _E = 0	(-)180			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)1mA, R _{BE} = ∞	(-)160			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = (-)10μA, 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:

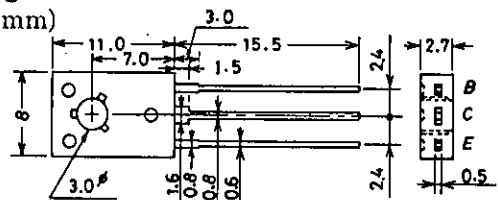
100 R 200	140 S 280	200 T 400
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Switching Time Test Circuit



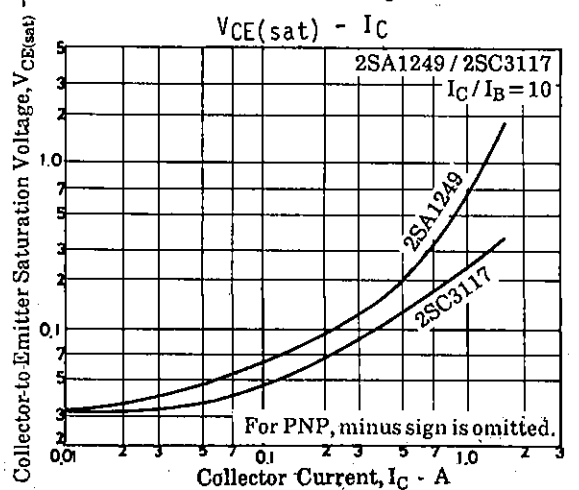
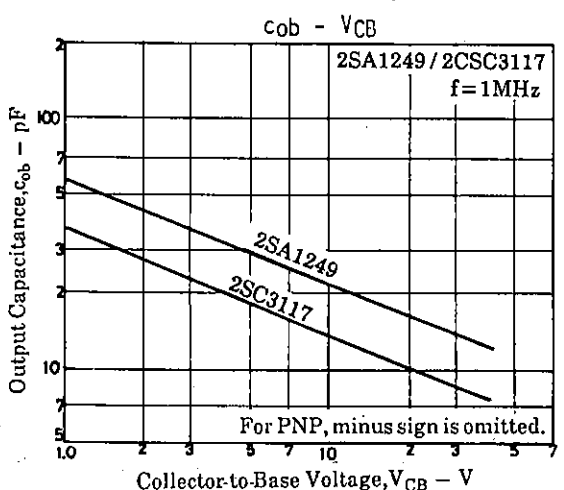
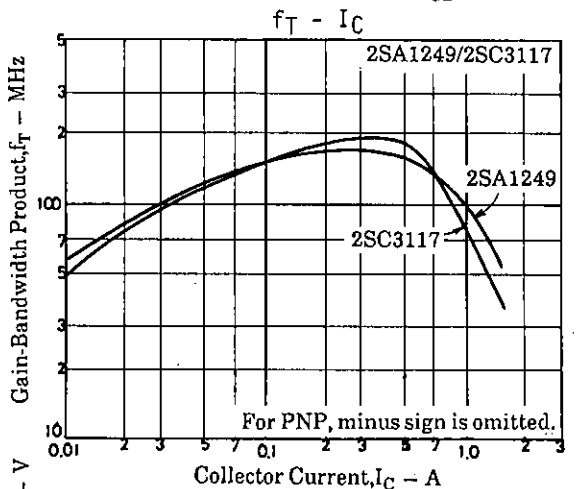
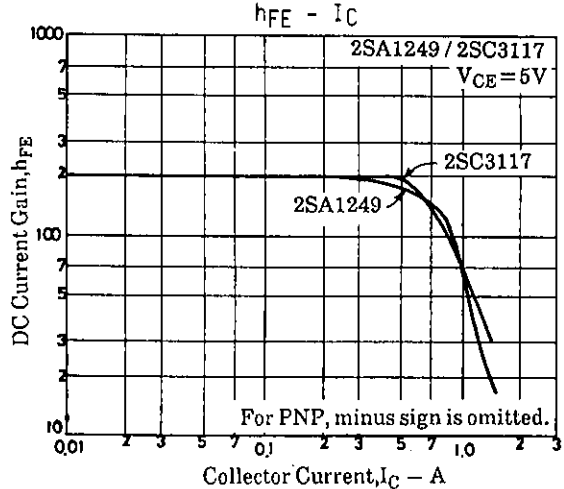
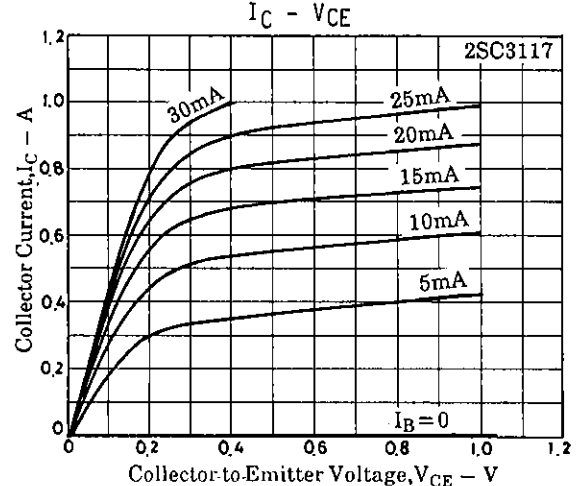
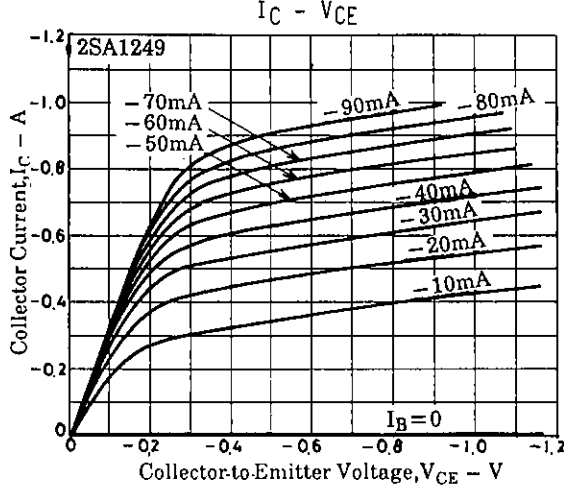
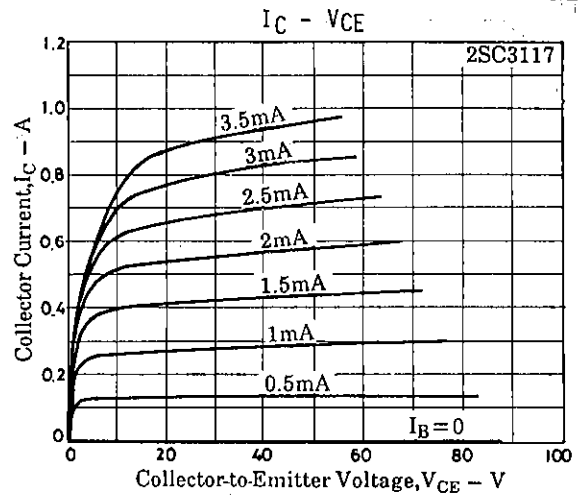
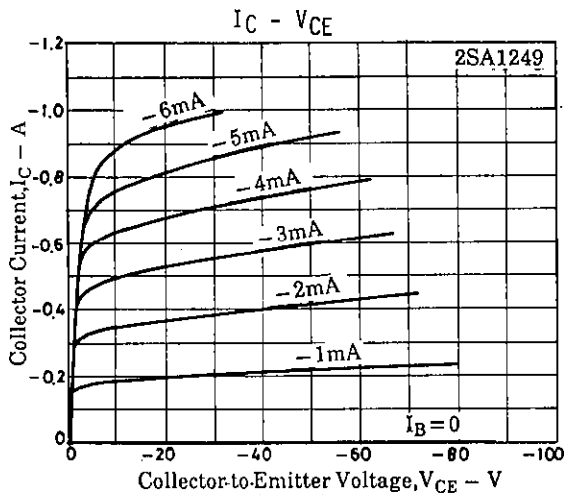
Package Dimensions 2009A

(unit: mm)

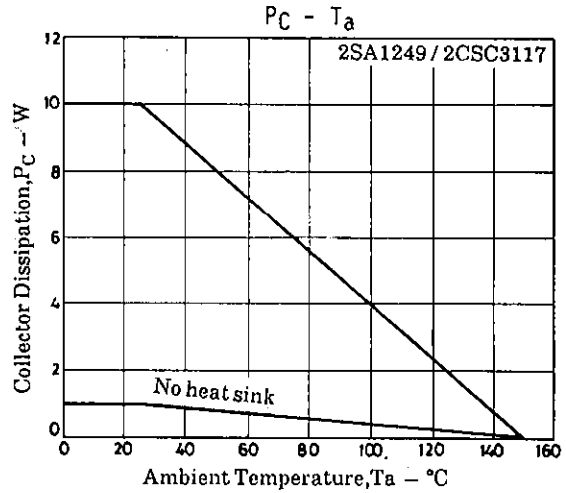
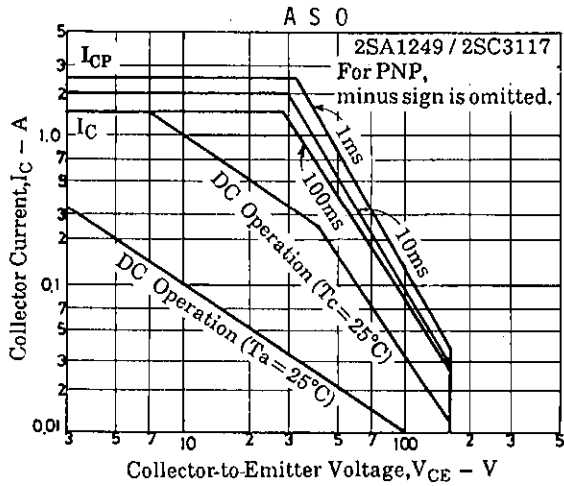


JEDEC: TO-126

B: Base
C: Collector
E: Emitter



2SA1249/2SC3117



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