



SANYO Semiconductors

DATA SHEET

2SA2221/2SC6141

PNP Epitaxial Planar Silicon Transistor
NPN Triple Diffused Planar Silicon Transistor

230V / 15A, AF100W

Output Applications

Applications

- 230V / 15A, AF100W output applications.

Features

- Large current capacitance.
- Wide ASO and high durability against breakdown.
- Adoption of MBIT process.

Specifications () : 2SA2221

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		(-)250	V
Collector-to-Emitter Voltage	V _{CEO}		(-)230	V
Emitter-to-Base Voltage	V _{EB0}		(-)6	V
Collector Current	I _C		(-)15	A
Collector Current (Pulse)	I _{CP}		(-)30	A
Collector Dissipation	P _C		3.5	W
		T _c =25°C	170	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

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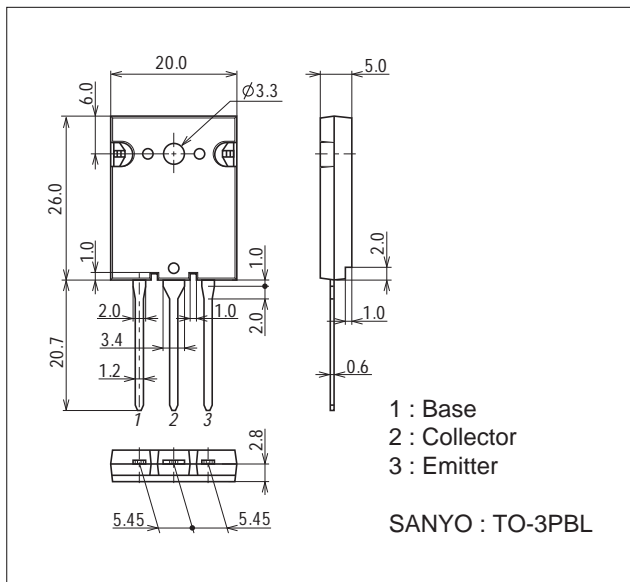
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)250V, I_E = 0A$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4V, I_C = 0A$			(-)0.1	mA
DC Current Gain	h_{FE1}	$V_{CE} = (-)5V, I_C = (-)1A$	60		160	
	h_{FE2}	$V_{CE} = (-)5V, I_C = (-)7.5A$	35			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)5V, I_C = (-)1A$		(10)15		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)10V, f = 1MHz$		(400)200		pF
Base-to-Emitter Voltage	V_{BE}	$V_{CE} = (-)5V, I_C = (-)7.5A$			(-)1.5	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)7.5A, I_B = (-)0.75A$		(-0.3)0.2	(-)2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)5mA, I_E = 0A$	(-)250			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)50mA, R_{BE} = \infty$	(-)230			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)5mA, I_C = 0A$	(-)6			V
Turn-On Time	t_{on}	See specified Test Circuit.		(0.45)0.56		μs
Storage Time	t_{stg}	See specified Test Circuit.		(1.75)3.3		μs
Fall Time	t_f	See specified Test Circuit.		(0.25)0.4		μs

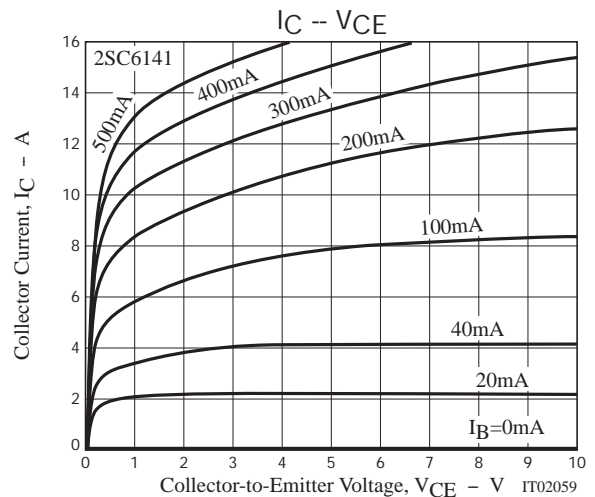
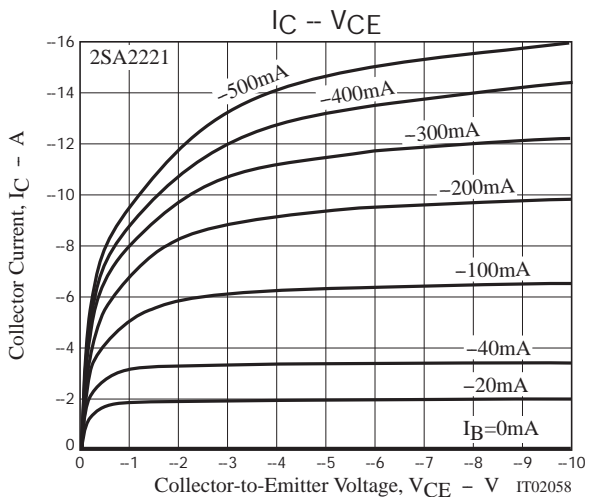
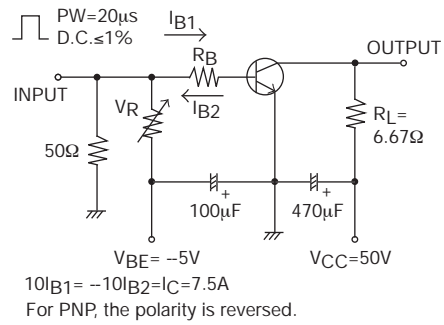
Package Dimensions

unit : mm (typ)

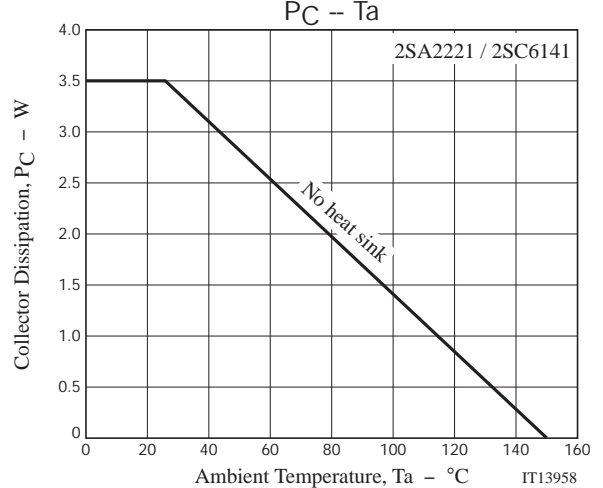
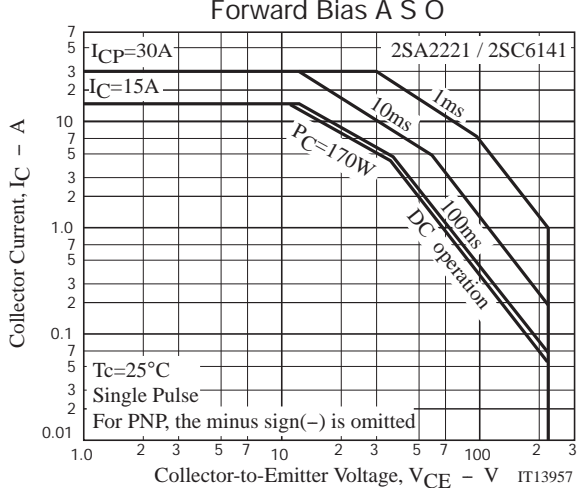
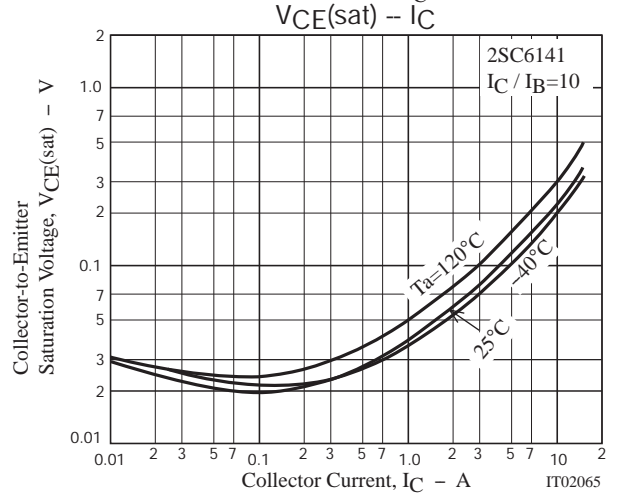
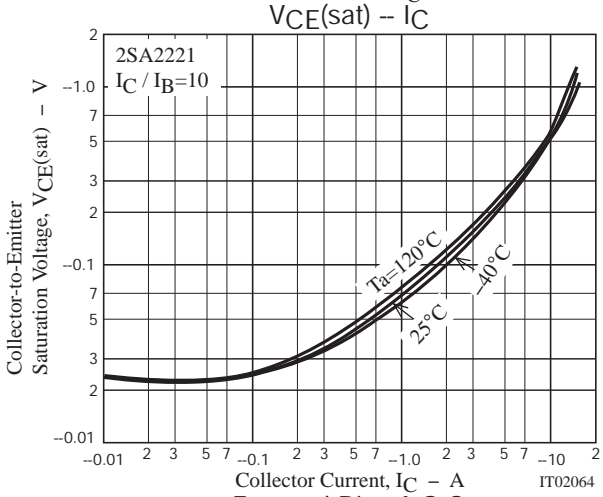
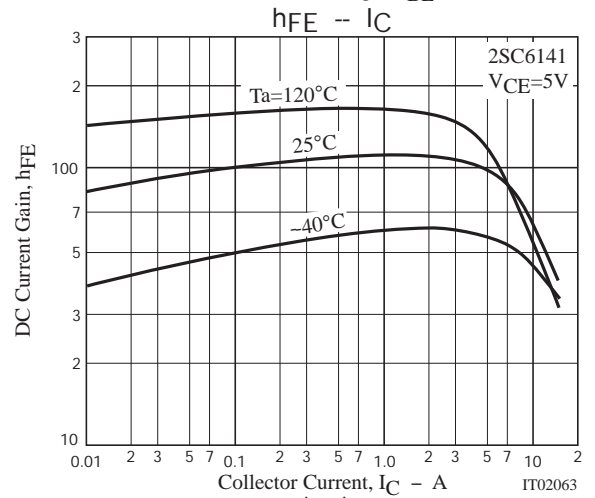
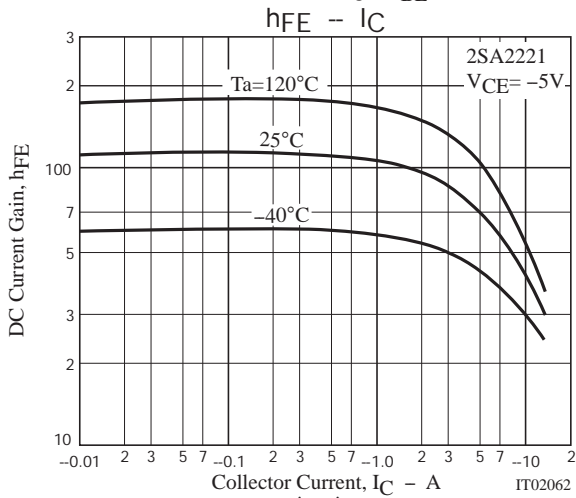
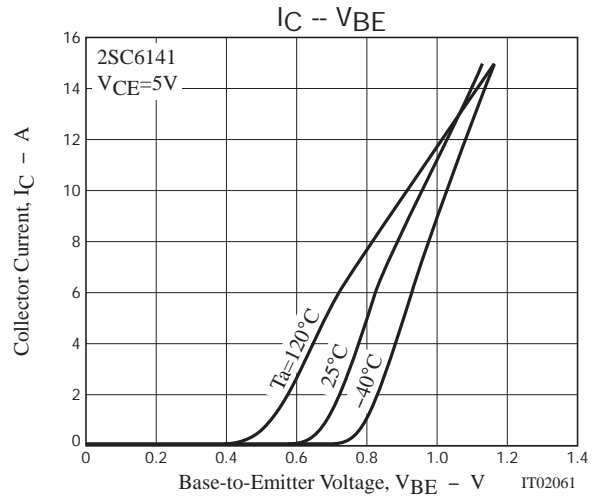
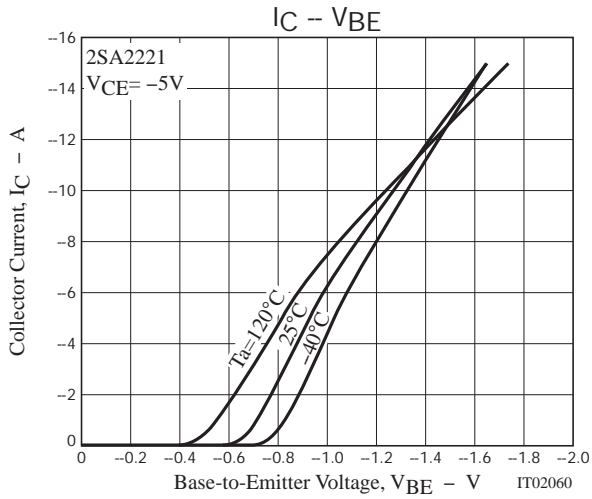
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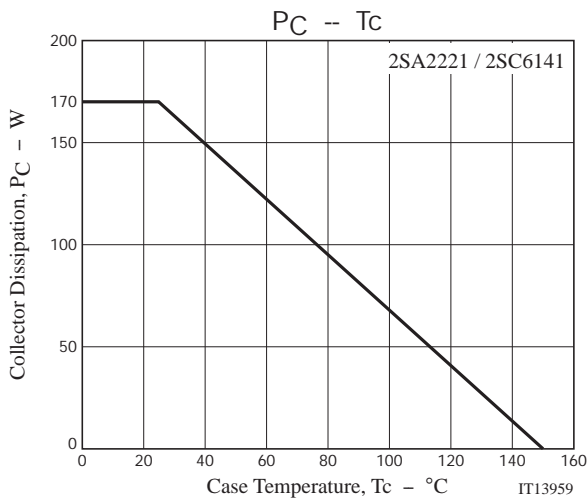


Switching Time Test Circuit



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