



SANYO Semiconductors

DATA SHEET

2SA2063 / 2SC5775

PNP Epitaxial Planar Silicon Transistor
NPN Triple Diffused Planar Silicon Transistor
160V / 12A, AF90W

Output Applications

Features

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

Specifications Note*() : 2SA2063

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		(-)180	V
Collector-to-Emitter Voltage	V _{CEO}		(-)160	V
Emitter-to-Base Voltage	V _{EBO}		(-)6	V
Collector Current	I _C		(-)12	A
Collector Current (Pulse)	I _{CP}		(-)24	A
Collector Dissipation	P _C		2.5	W
		T _c =25°C	130	W
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =(-)180V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(-)0.1	mA
DC Current Gain	h _{FE} (1)	V _{CE} =(-)5V, I _C =(-)1A	60		160	
	h _{FE} (2)	V _{CE} =(-)5V, I _C =(-)6A	35			
Gain-Bandwidth Product	f _T	V _{CE} =(-)5V, I _C =(-)1A		(10)15		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		(340)170		pF
Base-to-Emitter Voltage	V _{BE}	V _{CE} =(-)5V, I _C =(-)6A			1.5	V
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =(-)6A, I _B =(-)0.6A		(-0.3)0.2	(-)2.0	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =(-)5mA, I _E =0	(-)180			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =(-)50mA, R _{BE} =∞	(-)160			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)5mA, I _C =0	(-)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

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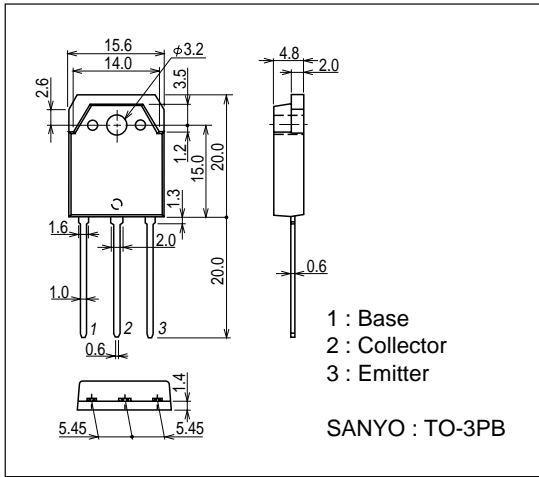
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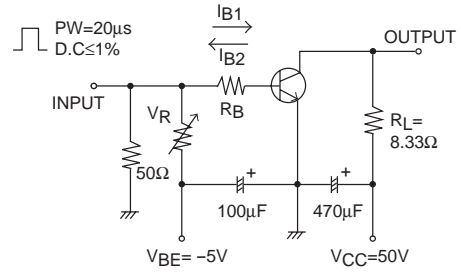
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Package Dimensions

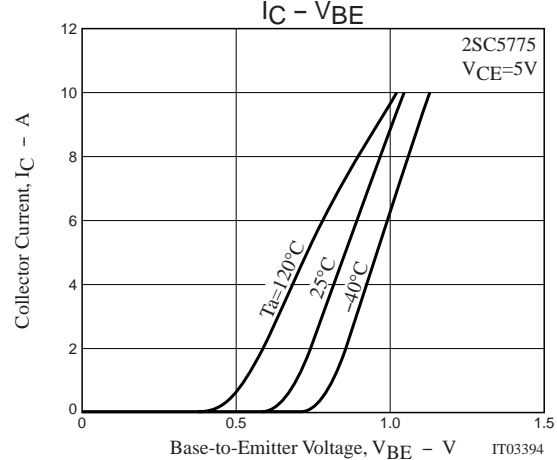
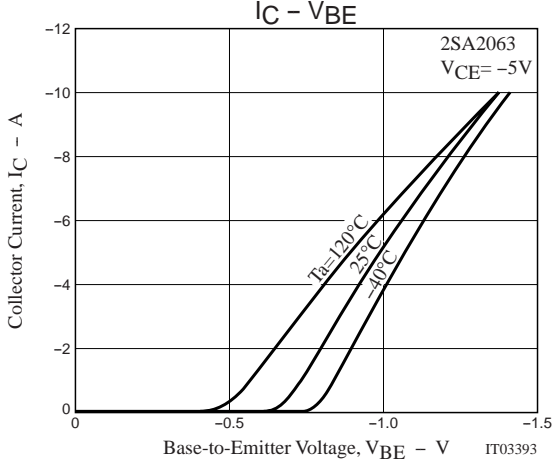
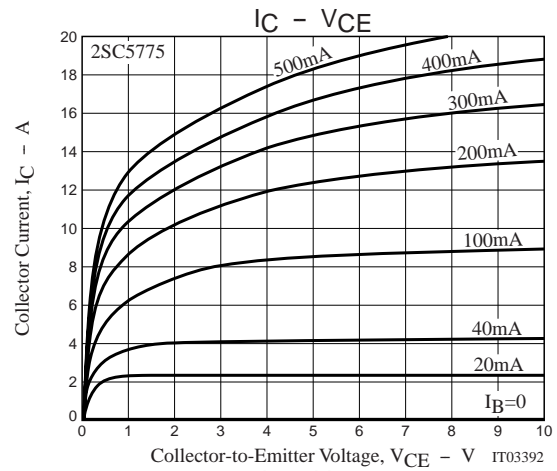
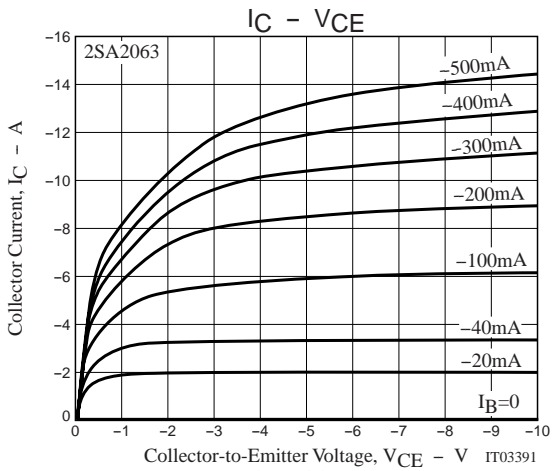
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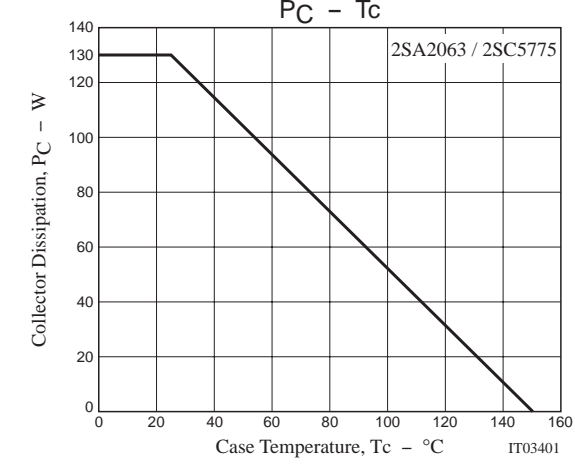
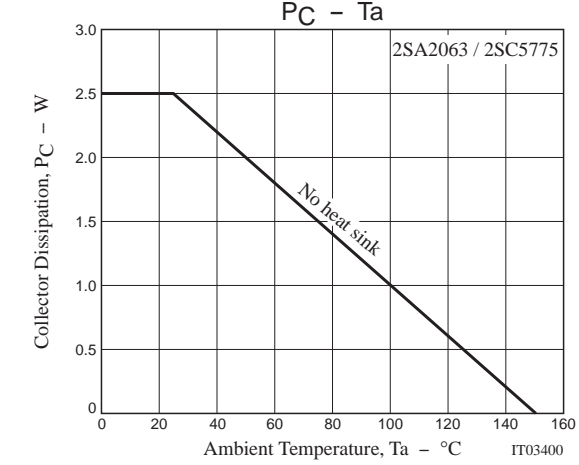
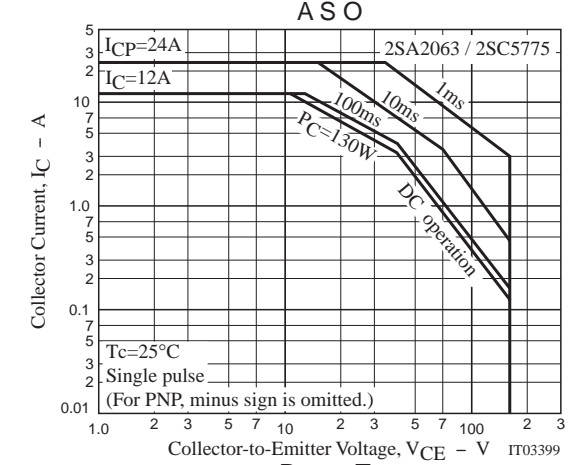
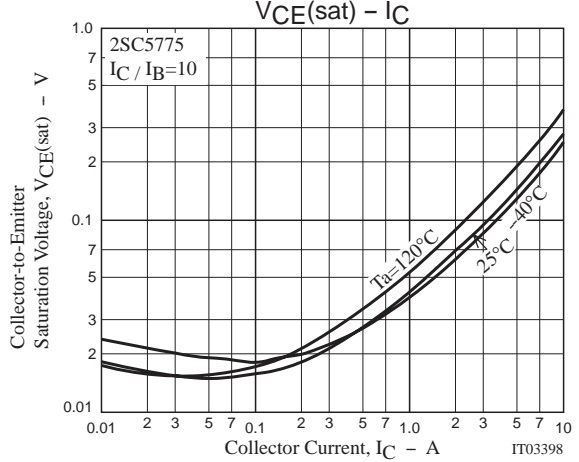
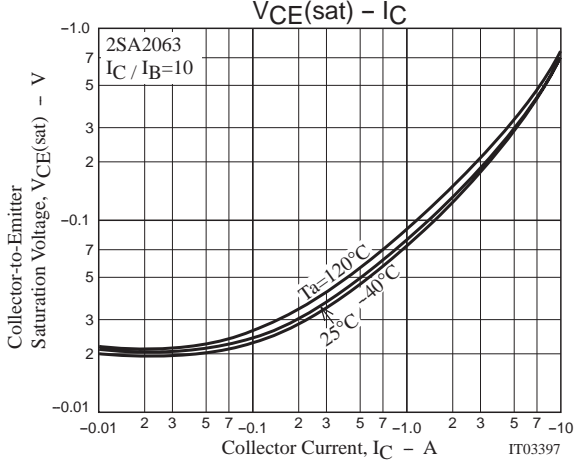
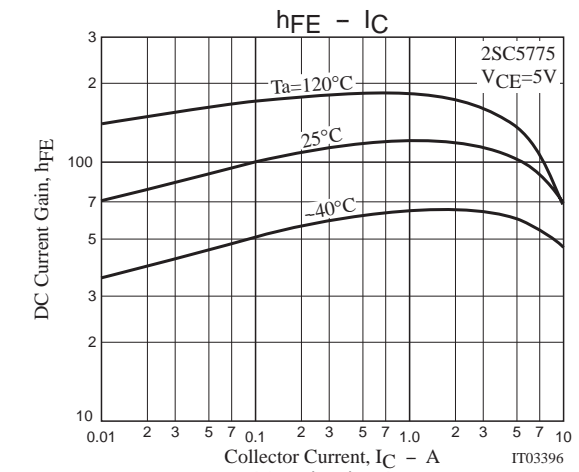
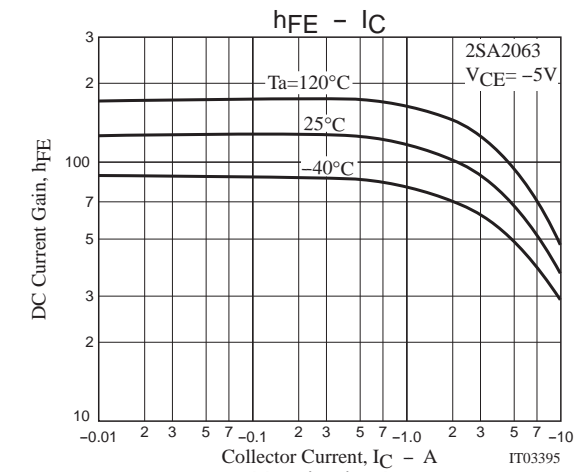
Switching Time Test Circuit



$I_C = 10I_{B1} = -10I_{B2} = 6A$
For PNP, the polarity is reversed.



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