



SANYO Semiconductors

DATA SHEET

2SC4736 — NPN Epitaxial Planar Silicon Transistor

High hFE, Low-Frequency General-Purpose Amplifier Applications

Features

- Large current ($I_C=2A$).
- Adoption of MBIT process.
- High DC current gain ($h_{FE}=800$ to 3200).
- Low collector-to-emitter saturation voltage ($V_{CE(sat)}\leq 0.5V$).
- High emitter-to-base voltage ($V_{EBO}\geq 15V$).
- Large power type such as $P_C=1.5W$ when used without heatsink.
- It is possible to make appliances more compact because its height on board is 9.5mm.
- Effective in automatic inserting and counting stocked amount because of being provided for radial taping.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		80	V
Collector-to-Emitter Voltage	V_{CEO}		60	V
Emitter-to-Base Voltage	V_{EBO}		15	V
Collector Current	I_C		2	A
Collector Current (Pulse)	I_{CP}		4	A
Base Current	I_B		400	mA
Collector Dissipation	P_C		1.5	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

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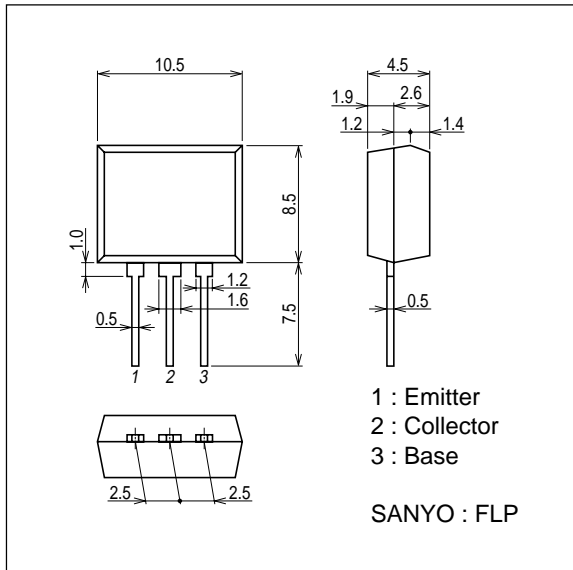
2SC4736

Electrical Characteristics at Ta=25°C

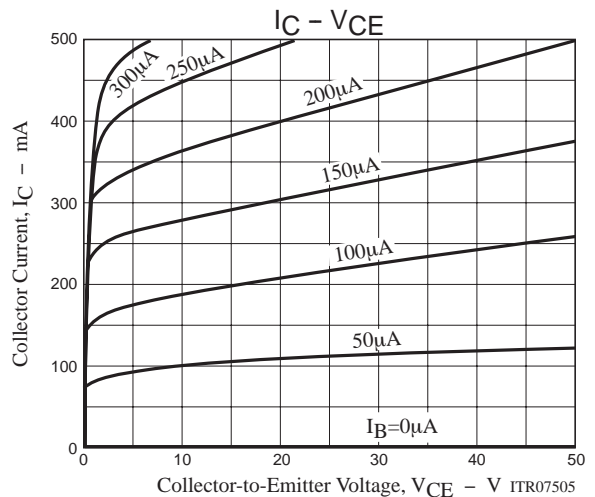
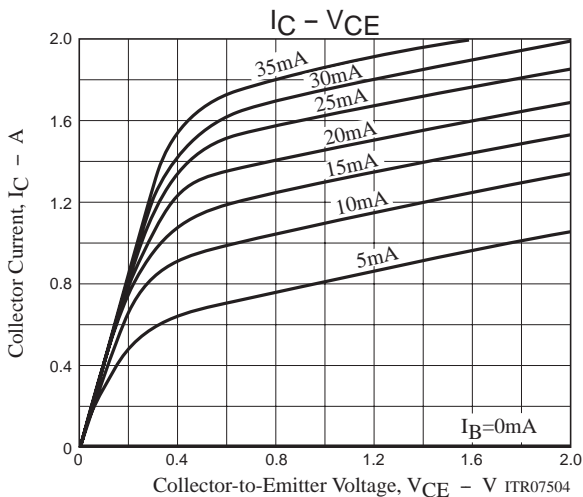
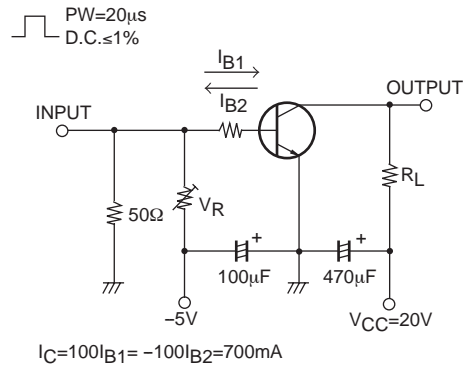
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} =50V, I _E =0A			1	μA
Emitter Cutoff Current	IEBO	V _{EB} =10V, I _C =0A			1	μA
DC Current Gain	hFE1	V _{CE} =5V, I _C =500mA	800	1500	3200	
	hFE2	V _{CE} =5V, I _C =1A	600			
Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =50mA		170		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		24		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =1A, I _B =20mA		0.2	0.5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =1A, I _B =20mA		0.87	1.2	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =10μA, I _E =0A	80			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA, R _{BE} =∞	60			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _C =0A	15			V
Turn-ON Time	t _{on}	See specified Test Circuit.		0.23		μs
Storage Time	t _{stg}	See specified Test Circuit.		2.7		μs
Fall Time	t _f	See specified Test Circuit.		0.75		μs

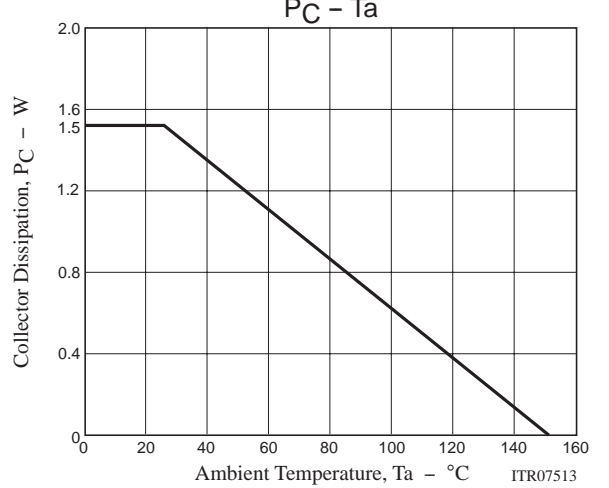
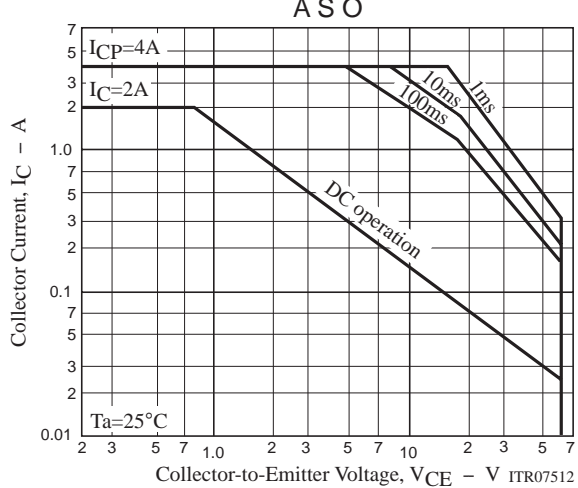
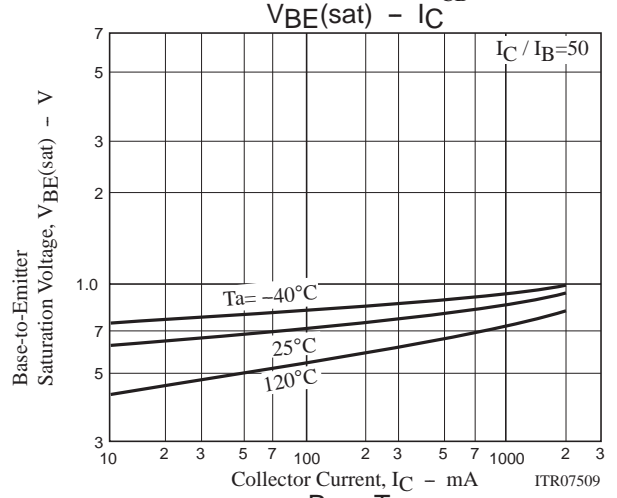
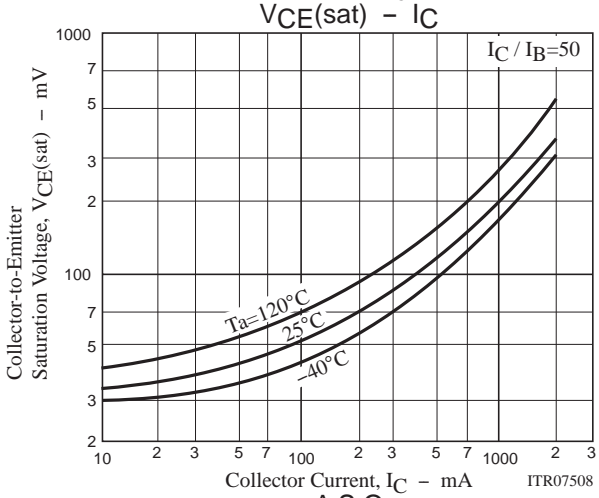
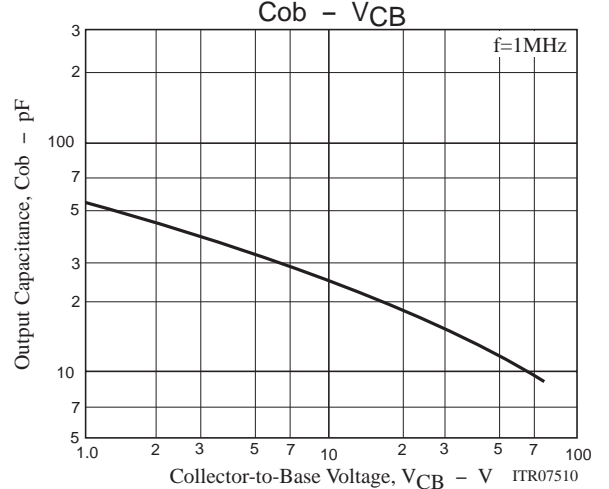
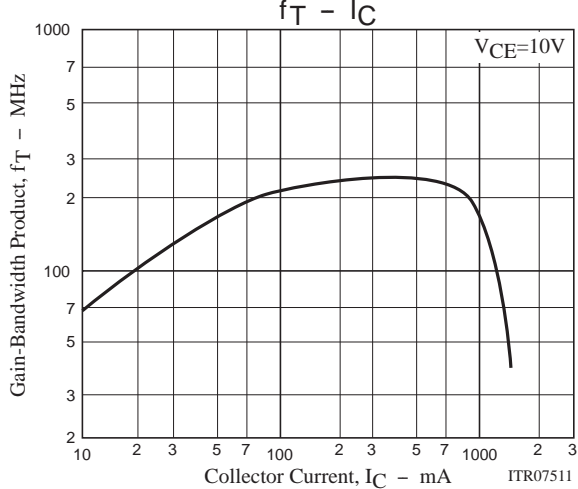
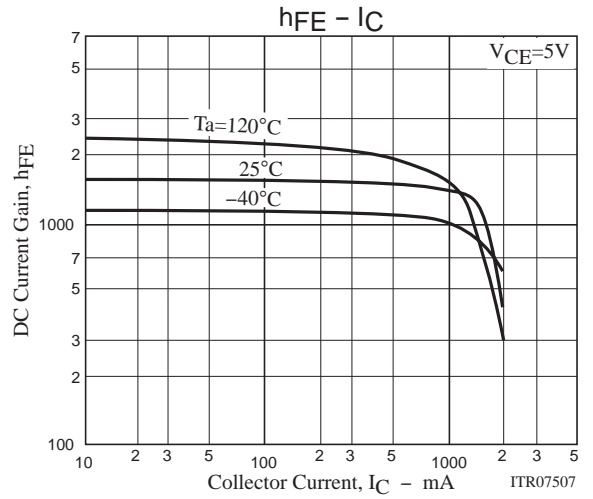
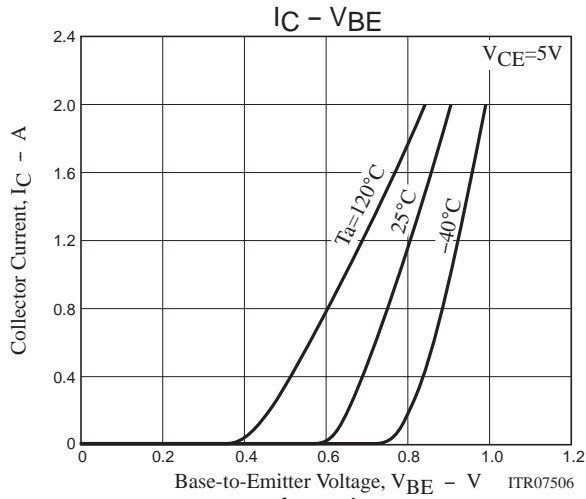
Package Dimensions

unit : mm (typ)
7514-003



Switching Time Test Circuit





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