



2SB1740

 — PNP Epitaxial Planar Silicon Transistor
Driver Applications

Features

- Large current capacitance.
- Wide ASO and high durability against breakdown.
- Adoption of MBIT process.
- Attachment workability is good by Mica-less package.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-160	V
Collector-to-Emitter Voltage	VCEO		-120	V
Emitter-to-Base Voltage	VEBO		-6	V
Collector Current	IC		-12	A
Collector Current (Pulse)	ICP		-20	A
Collector Dissipation	PC		3.0	W
		Tc=25°C	75	W
Junction Temperature	TJ		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	VCB=-160V, IE=0A			-0.1	mA
Emitter Cutoff Current	IEBO	VEB=-4V, IC=0A			-0.1	mA
DC Current Gain	hFE1	VCE=-5V, IC=-1A	100		200	
	hFE2	VCE=-5V, IC=-5A	35			
Gain-Bandwidth Product	fT	VCE=-5V, IC=-1A		10		MHz
Output Capacitance	Cob	VCB=-10V, f=1MHz		280		pF

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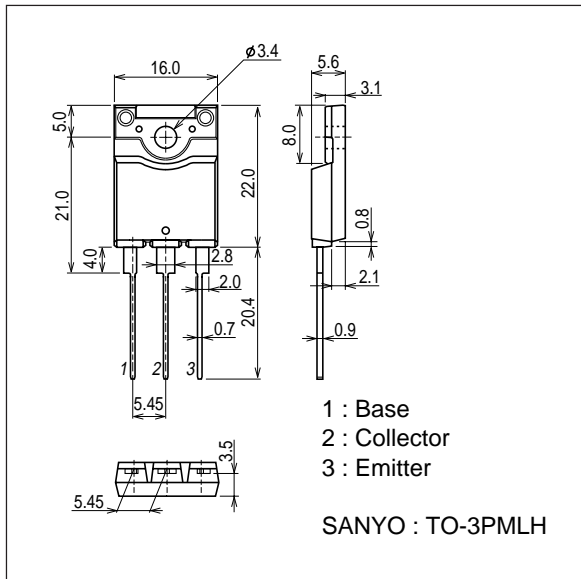
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Base-to-Emitter Voltage	V_{BE}	$V_{CE}=-5V, I_C=-5A$			-1.5	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-5A, I_B=-0.5A$		-0.3	-2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-5mA, I_E=0A$	-160			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-50mA, R_{BE}=\infty$	-120			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		μs
Storage Time	t_{stg}	See specified Test Circuit.		1.75		μs
Fall Time	t_f	See specified Test Circuit.		0.25		μs

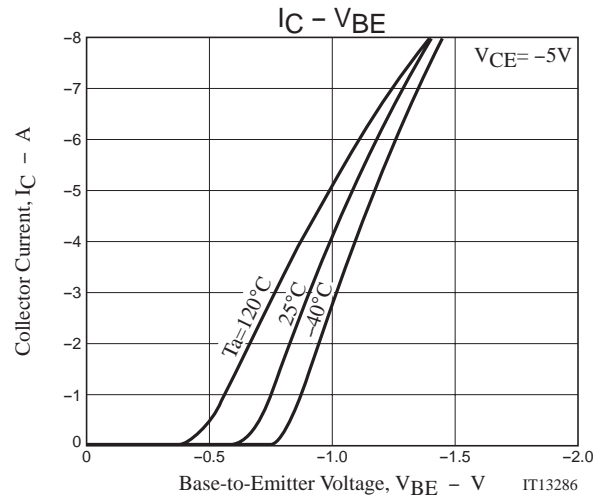
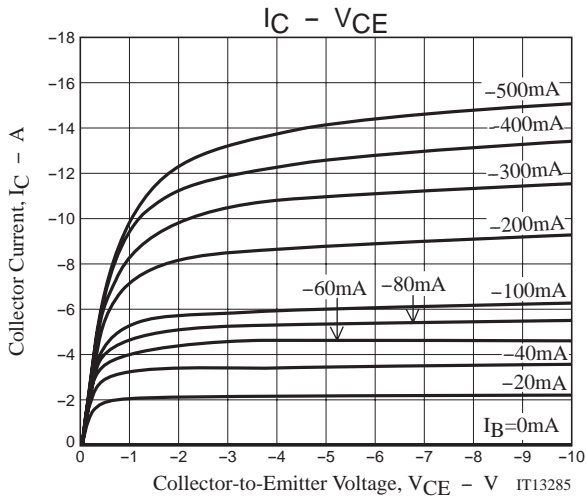
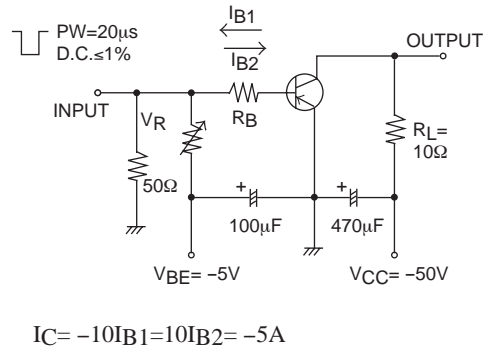
Package Dimensions

unit : mm (typ)

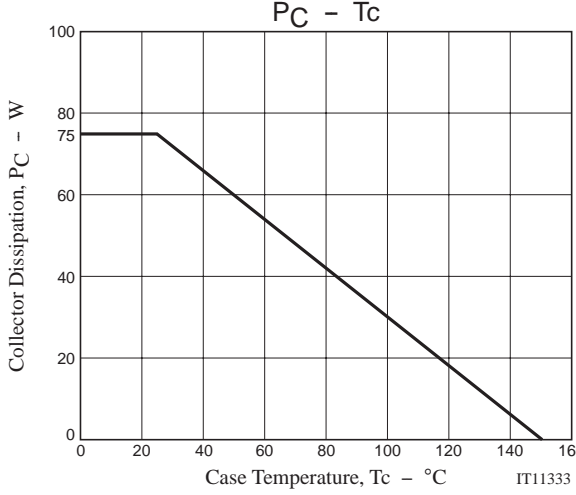
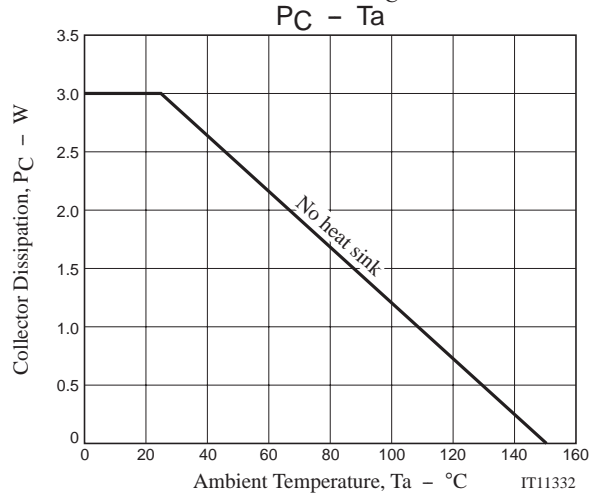
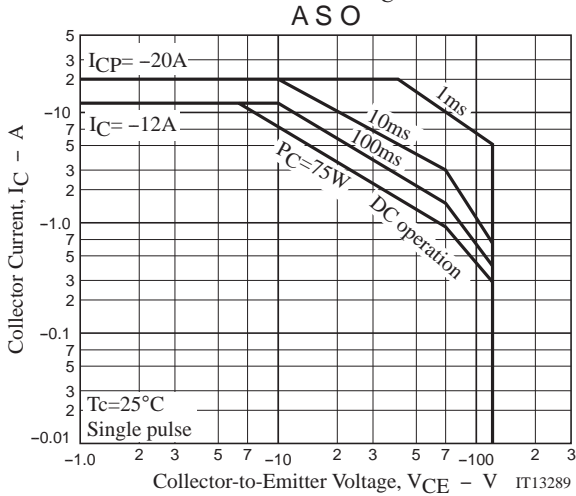
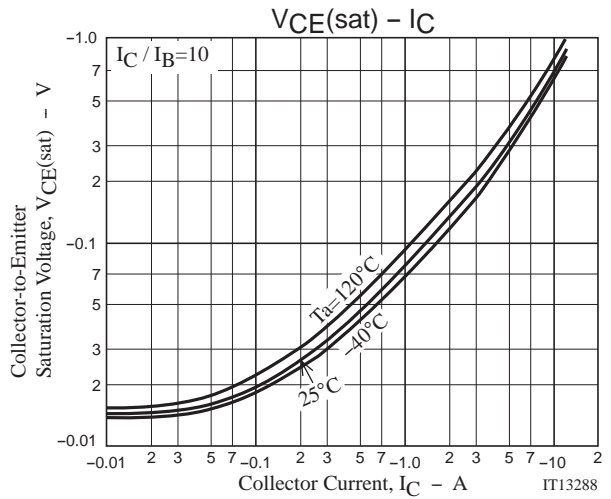
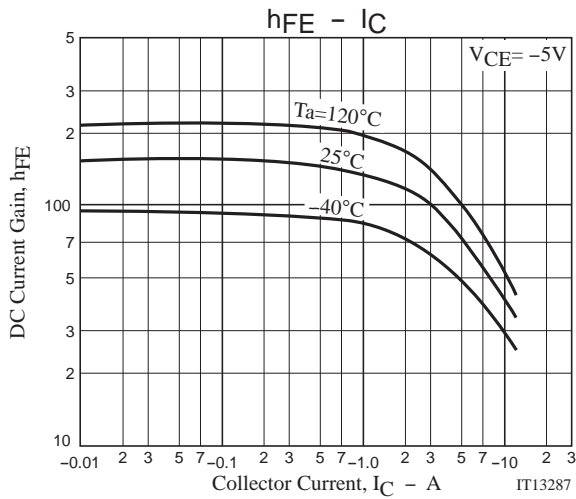
7504-001



Switching Time Test Circuit



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