



SANYO Semiconductors

## DATA SHEET

# 2SD2721

 — NPN Triple Diffused 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		15		MHz
Output Capacitance	Cob	VCB=10V, f=1MHz		140		pF

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# 2SD2721

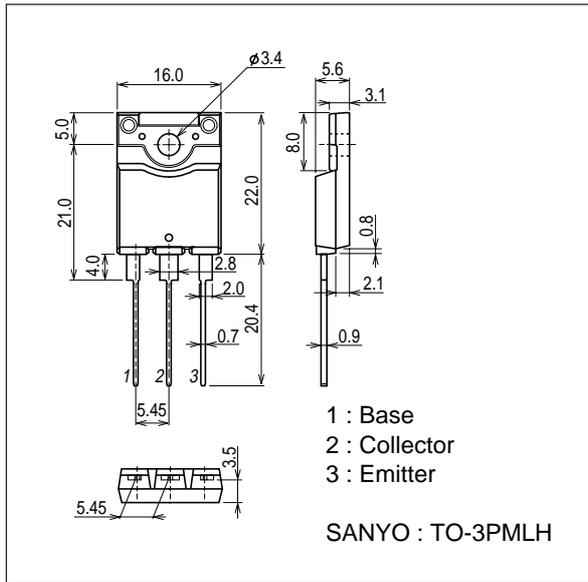
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Base-to-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=5A$			1.5	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$		0.2	2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=5mA, I_E=0A$	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.		0.56		$\mu s$
Storage Time	$t_{stg}$	See specified Test Circuit.		3.3		$\mu s$
Fall Time	$t_f$	See specified Test Circuit.		0.4		$\mu s$

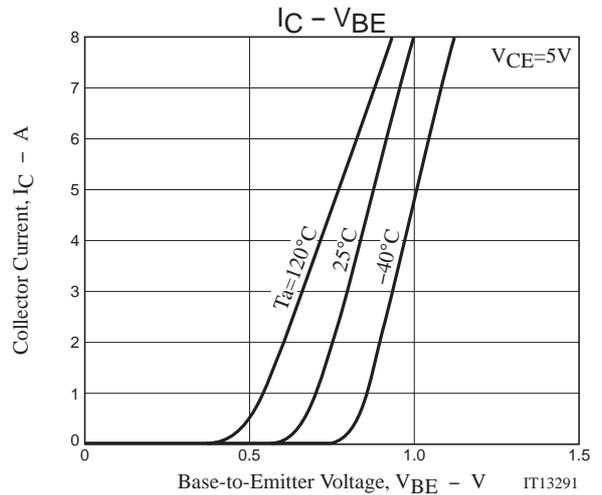
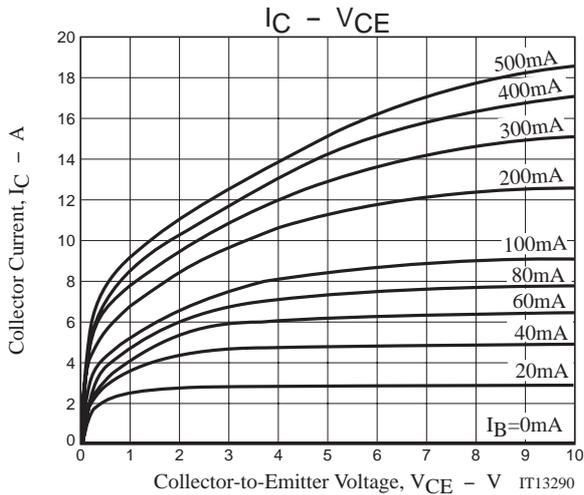
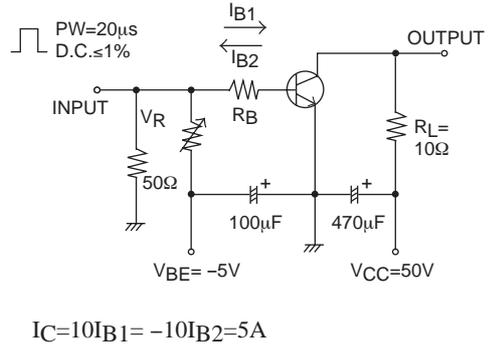
## Package Dimensions

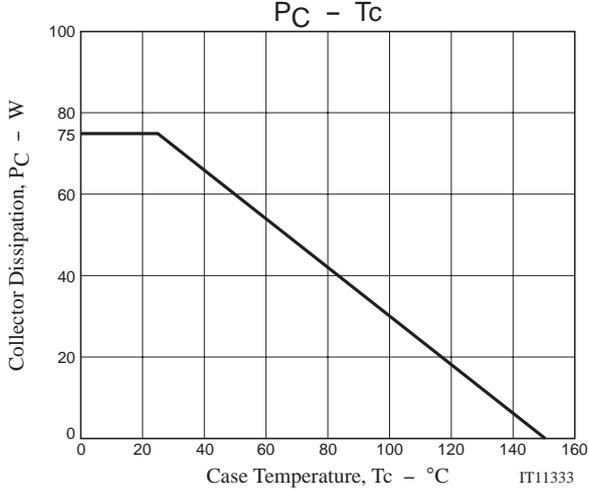
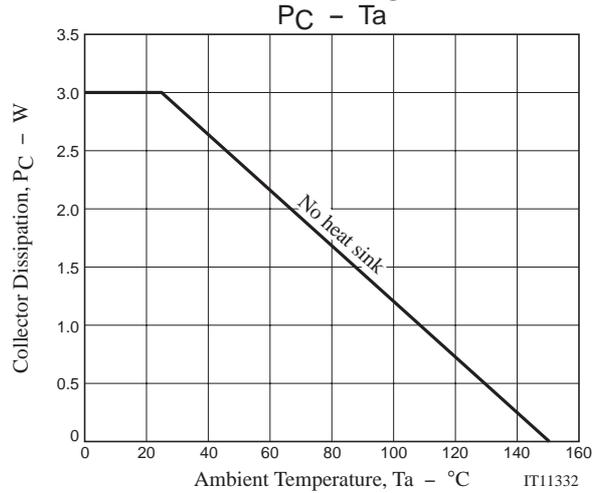
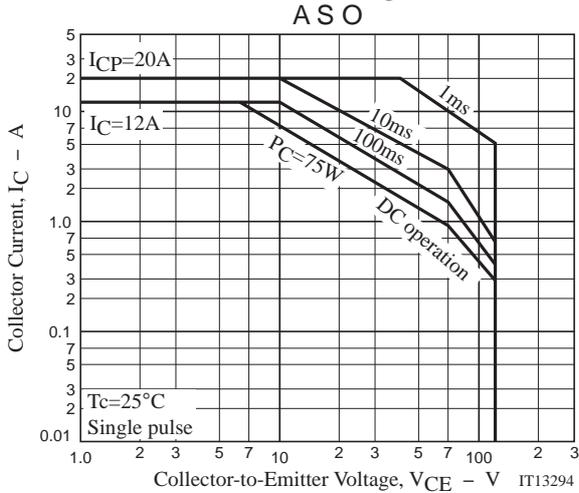
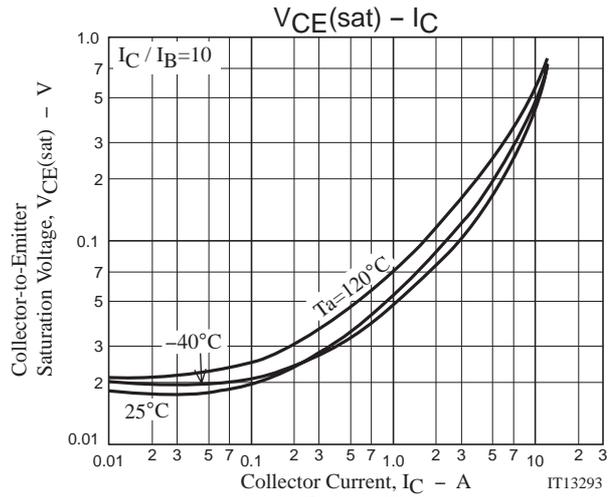
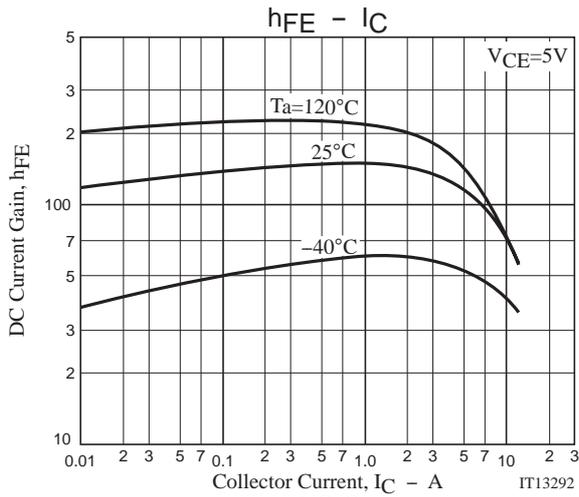
unit : mm (typ)

7504-001



## Switching Time Test Circuit





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