

2SB633P / 2SD613P

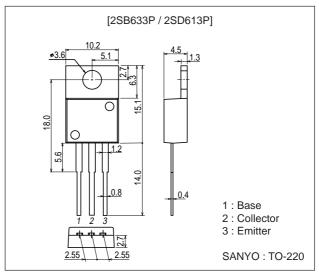
85V / 6A, AF 35 to 45W Output Applications

Features

- High breakdown voltage, VCEO 85V, high current 6A.
- · AF 35 to 45W output.

Package Dimensions

unit : mm 2010C



Specifications

(): 2SB633P

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		(-)100	V
Collector-to-Emitter Voltage	VCEO		(–)85	V
Emitter-to-Base Voltage	VEBO		(-)6	V
Collector Current	IC		(-)6	Α
Collector Current (Pulse)	ICP		(–)10	Α
Collector Dissipation	PC	Tc=25°C	60	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	Offic
Collector Cutoff Current	ICBO	V _{CB} =(-)40V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	IEBO	VEB=(-)4V, IC=0			(-)0.1	mA

Continued on next page.

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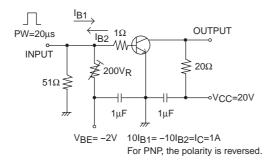
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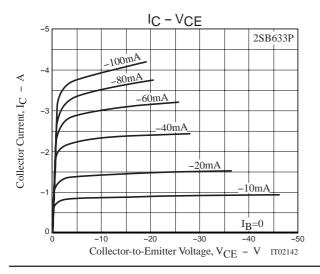
Parameter	Symbol	Conditions	Ratings			Unit
i didilietei	Gymbol		min	typ	max	Offic
DC Current Gain	hFE1	VCE=(-)5V, IC=(-)1A	40*		320*	
DC Current Gain	hFE2	V _{CE} =(-)5V, I _C =(-)3A	20			
Gain-Bandwidth Product	fŢ	VCE=(-)5V, IC=(-)1A		15		MHz
Output Capacitance	Cob	V _{CB} =(-)10V, f=1MHz		(150)110		pF
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =(-)4A, I _B =(-)0.4A			(-)2.0	V
Base-to-Emitter Voltage	VBE	VCE=(-)5V, IC=(-)1A			(-)1.5	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)5mA, I _E =0	(-)100			V
Callantan to Fraitten Brandelin Valtana	V(BR)CEO	I _C =(-)5mA, R _{BE} =∞	(-)85			V
Collector-to-Emitter Breakdown Voltage		IC=(-)50mA, RBE=∞	(-)85			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =(-)5mA, I _C =0	(-)6			V
Turn-ON Time	ton	See specified test circuit.		(0.16)0.28		μs
Fall Time	tf	See specified test circuit.		(0.33)0.50		μs
Storage Time	t _{stg}	See specified test circuit.		(1.45)3.60		μs

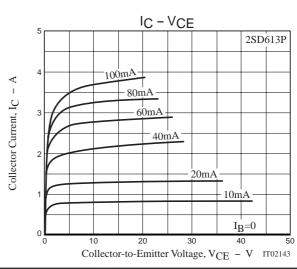
 $[\]ensuremath{^*}$: The 2SB633P / 2SD613P are classified by 1A hFE as follows :

Rank	D	E	F	
hFE	60 to 120	100 to 200	160 to 320	

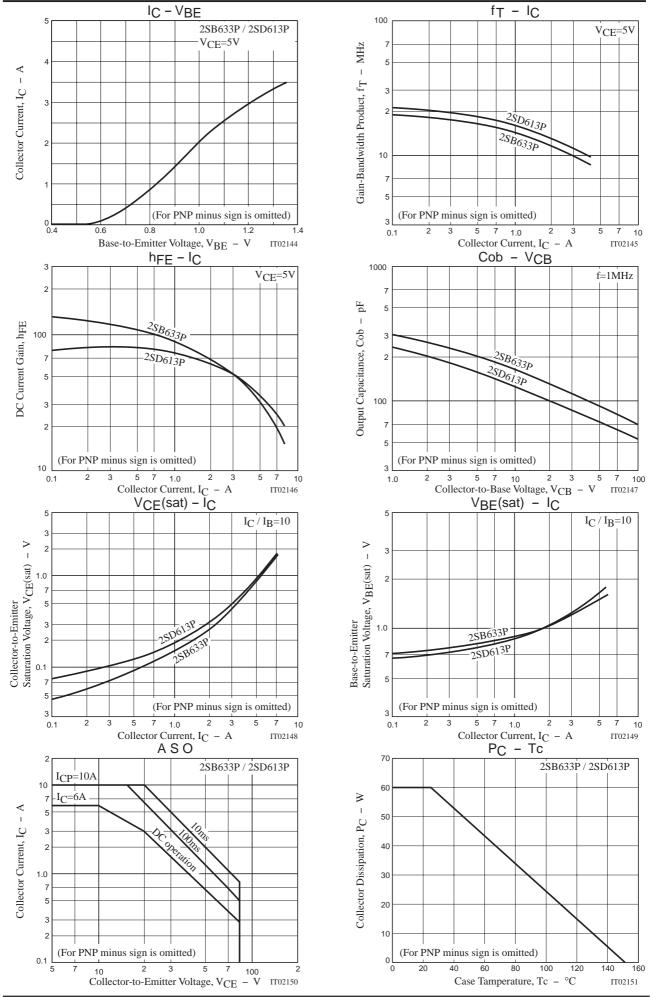
Swicthing Time Test Circuit







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