



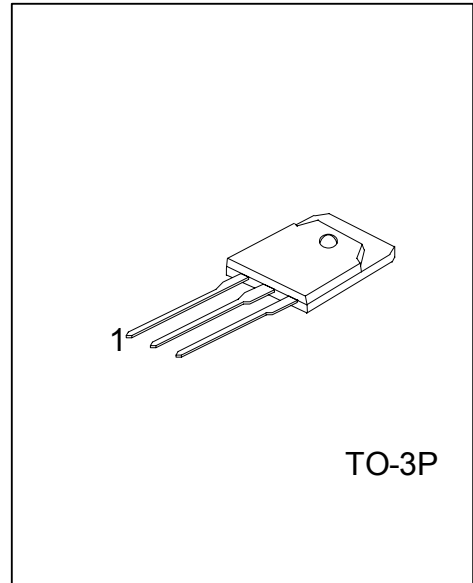
2SC3320

NPN SILICON TRANSISTOR

HIGH VOLTAGE HIGH SPEED SWITCHING

■ FEATURES

- * High voltage, high speed switching
- * High reliability



*Pb-free plating product number:2SC3320L

■ ORDERING INFORMATION

Order Number		Pin Assignment			Package	Packing
Normal	Lead Free Plating	1	2	3		
2SC3320-T3P-T	2SC3320L-T3P-T	B	C	E	TO-3P	Tube

<p>2SC3320L-T3P-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Plating</p>	<p>(1) T: Tube</p> <p>(2) T3P: TO-3P</p> <p>(3) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_c = 25)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector Base Voltage	V _{CBO}	500	V
Collector Emitter Voltage	V _{CEO}	400	V
	V _{CEO(SUS)}	400	V
Emitter Base Voltage	V _{EBO}	7	V
Collector Current	I _C	15	A
Base Current	I _B	5	A
Power Dissipation	P _D	80	W
Junction Temperature	T _J	+150	
Storage Temperature	T _{STG}	-40 ~ +150	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

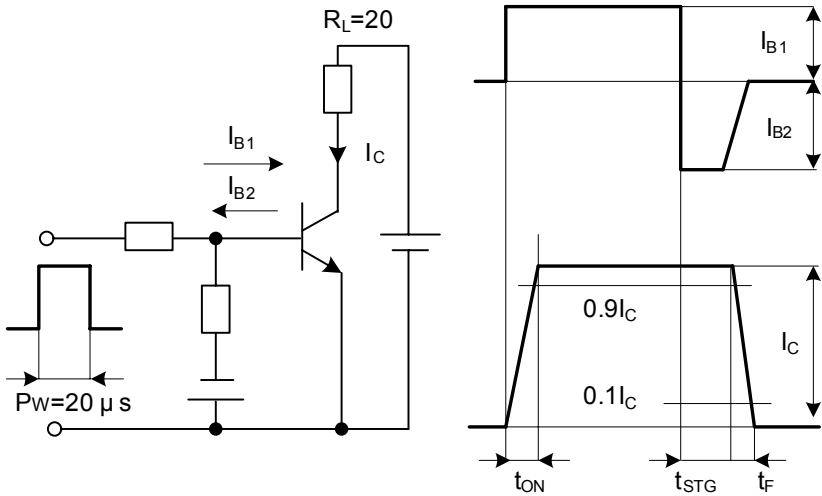
■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Thermal Resistance Junction to Case	θ _{JC}	1.55	/W

■ ELECTRICAL SPECIFICATIONS (T_c=25 , Unless Otherwise Specified.)

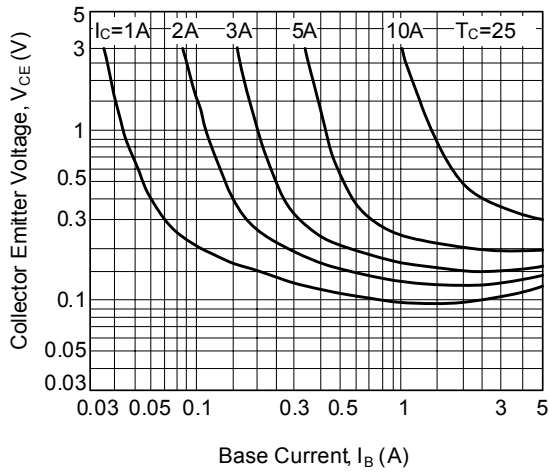
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Voltage	V _{CBO}	I _{CBO} =1mA	500			V
Collector Emitter Voltage	V _{CEO}	I _{CEO} =10mA	400			V
	V _{CEO(SUS)}	I _C =0.2A	400			V
Emitter Base Voltage	V _{EBO}	I _{EBO} =1mA	7			V
Collector Emitter Saturation Voltage	V _{CE(SAT)}	I _C =6A, I _B =1.2A			1	V
Base Emitter Saturation Voltage	V _{BE(SAT)}				1.5	V
Collector Cut-off Current	I _{CBO}	V _{CBO} =500V			1	mA
Emitter Cut-off Current	I _{EBO}	V _{EBO} =7V			1	mA
DC Current Gain	h _{FE}	I _C =6A, V _{CE} =5V	10			
Switching Time	t _{ON}	I _C =7.5A, I _{B1} =1.5A, I _{B2} =-3A R _L =20Ω, P _w =20μs, Duty ≤ 2%			0.5	μs
	t _{STG}				1.5	μs
	t _F				0.15	μs

SWITCHING TIME TEST CIRCUIT

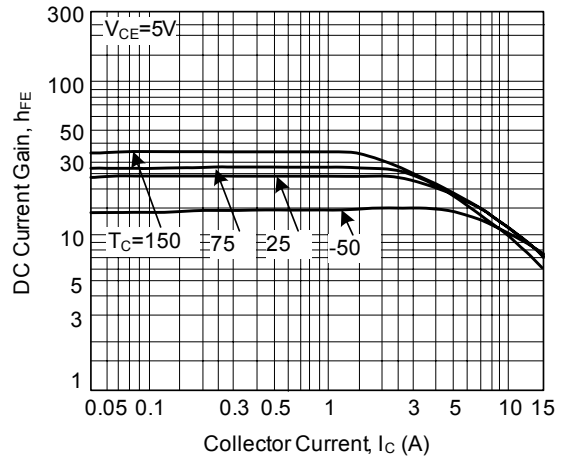


TYPICAL CHARACTERISTICS

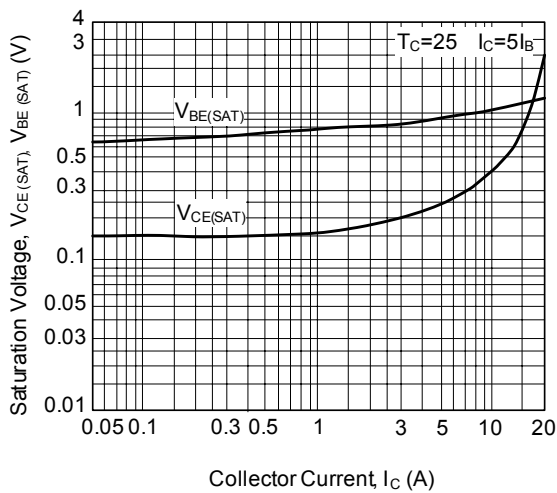
Collector Output Characteristics



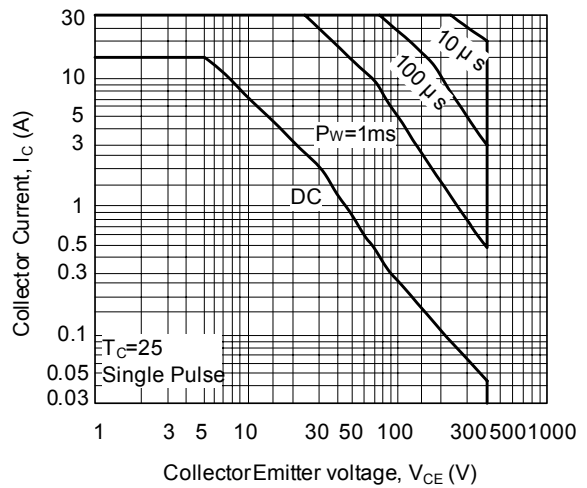
DC Current Gain



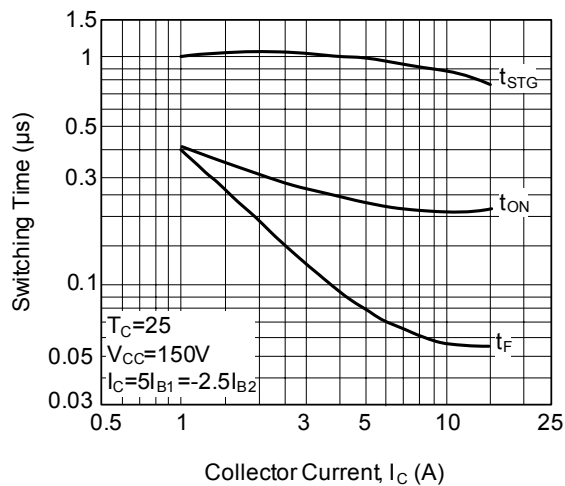
Base and Collector Saturation Voltage



Safe Operating Area



Switching Time



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