



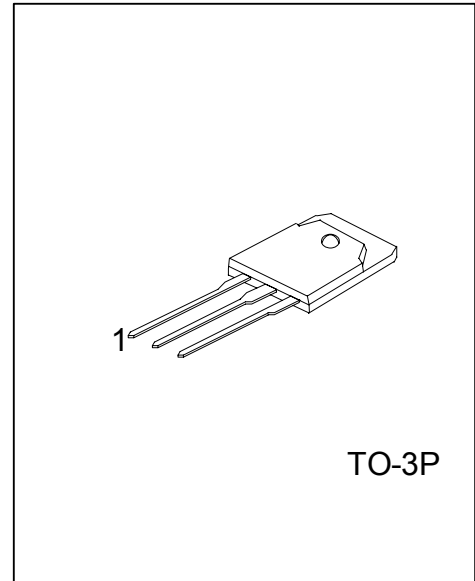
2SC3320

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

2SC3320L-T3P-T (1)Packing Type (2)Package Type (3)Lead Plating		(1) T: Tube (2) T3P: TO-3P (3) L: Lead Free Plating, Blank: Pb/Sn
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■ ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$)

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.

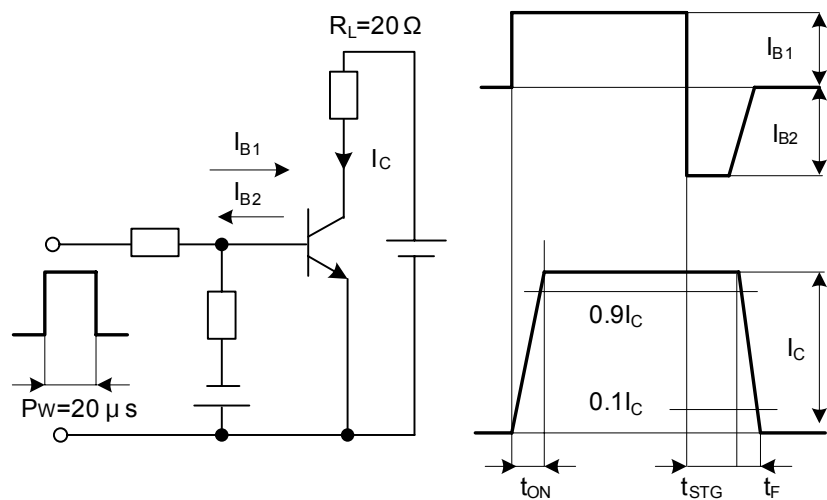
■ THERMAL DATA

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

■ ELECTRICAL SPECIFICATIONS ($T_C = 25^\circ\text{C}$, Unless Otherwise Specified.)

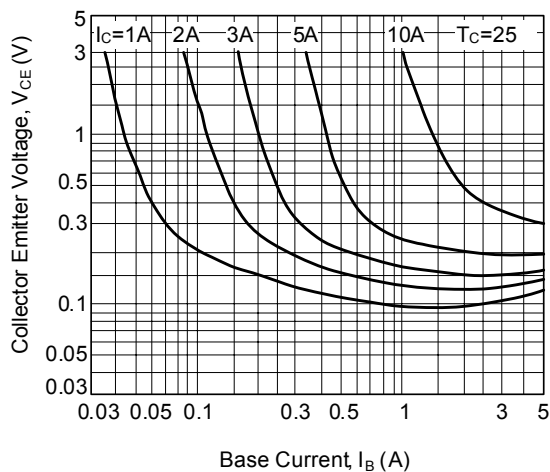
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Voltage	V_{CBO}	$I_{CBO} = 1\text{mA}$	500			V
Collector Emitter Voltage	V_{CEO}	$I_{CEO} = 10\text{mA}$	400			V
	$V_{CEO(SUS)}$	$I_C = 0.2\text{A}$	400			V
Emitter Base Voltage	V_{EBO}	$I_{EBO} = 1\text{mA}$	7			V
Collector Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 6\text{A}, I_B = 1.2\text{A}$			1	V
Base Emitter Saturation Voltage	$V_{BE(SAT)}$				1.5	V
Collector Cut-off Current	I_{CBO}	$V_{CBO} = 500\text{V}$			1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EBO} = 7\text{V}$			1	mA
DC Current Gain	h_{FE}	$I_C = 6\text{A}, V_{CE} = 5\text{V}$	10			
Switching Time	t_{ON}	$I_C = 7.5\text{A}, I_{B1} = 1.5\text{A}, I_{B2} = -3\text{A}$ $R_L = 20\Omega, P_w = 20\mu\text{s}, \text{Duty} \leq 2\%$			0.5	μs
	t_{STG}				1.5	μs
	t_F				0.15	μs

■ SWITCHING TIME TEST CIRCUIT

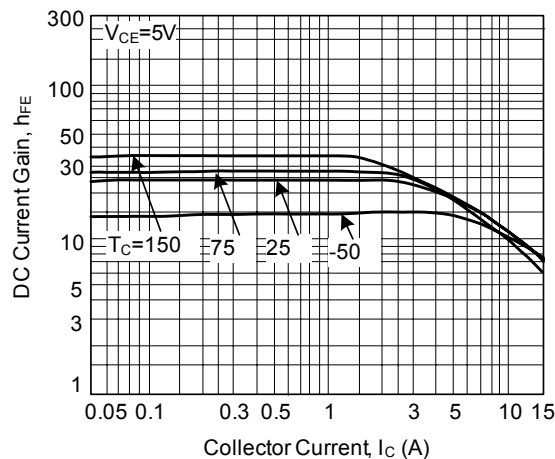


TYPICAL CHARACTERISTICS

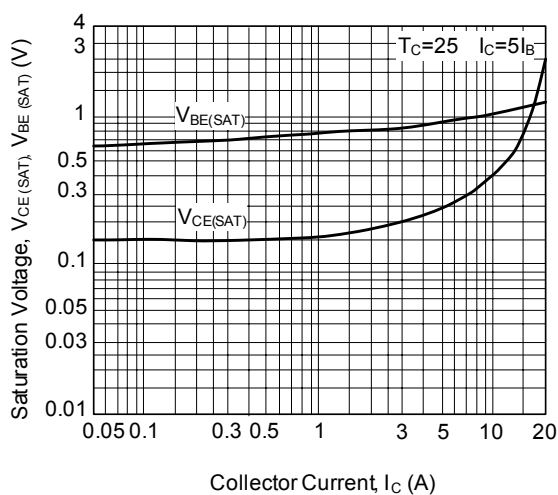
Collector Output Characteristics



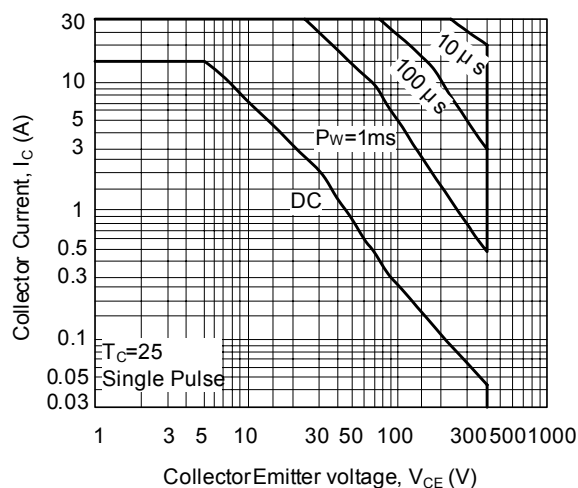
DC Current Gain



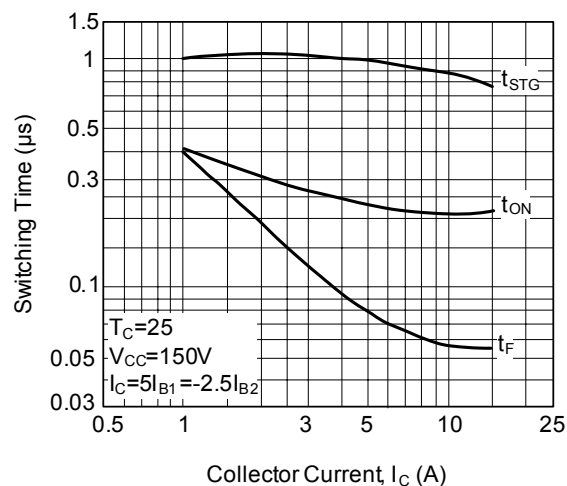
Base and Collector Saturation Voltage



Safe Operating Area



Switching Time



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