



2SD667

NPN SILICON TRANSISTOR

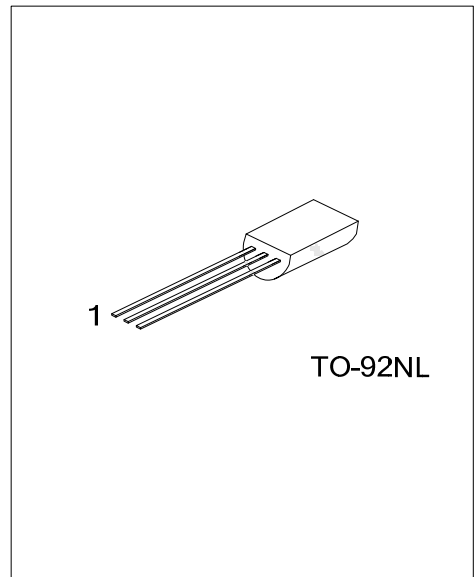
SILICON NPN EPITAXIAL

DESCRIPTION

The UTC **2SD667** is a NPN epitaxial silicon transistor, which can be used as a low frequency power amplifier.

FEATURES

* Low frequency power amplifier



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD667L-x-T9N-B	2SD667G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SD667L-x-T9N-K	2SD667G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SD667L-x-T9N-B</p>	<p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Free</p>	<p>(1) B: Tape Box, K: Bulk (2) T9N: TO-92NL (3) refer to CLASSIFICATION OF h_{FE1} (4) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.0	A
Collector Peak Current (Note2)	I_{CP}	2.0	A
Collector Power Dissipation	P_C	0.9	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Notes: 1. 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.

2. $PW \leq 10ms$, Duty cycle $\leq 20\%$

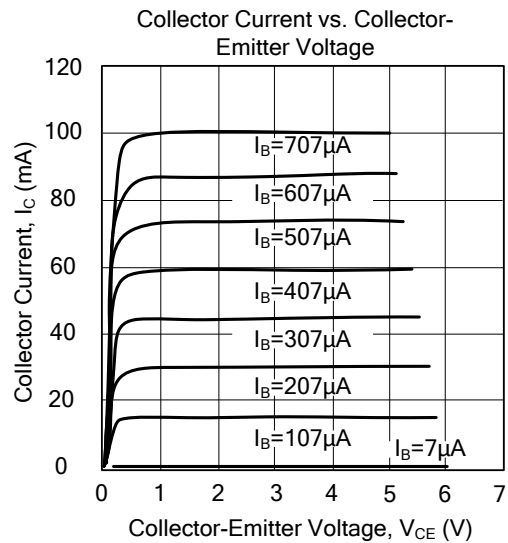
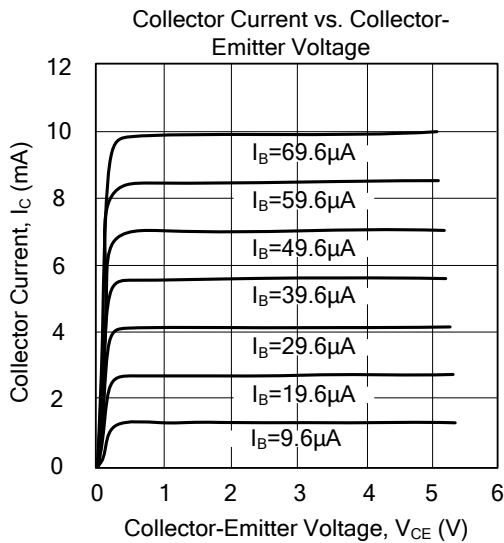
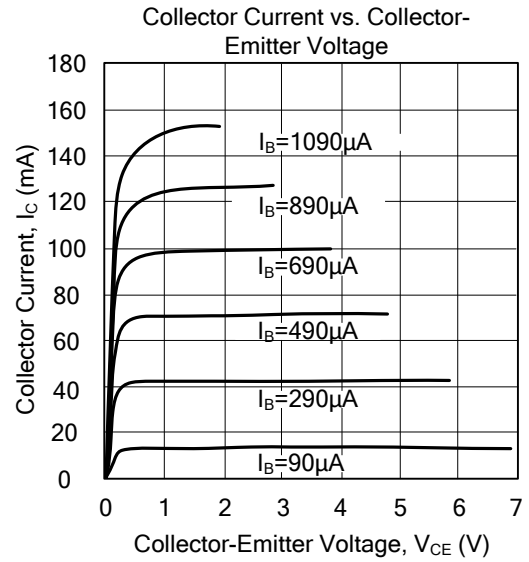
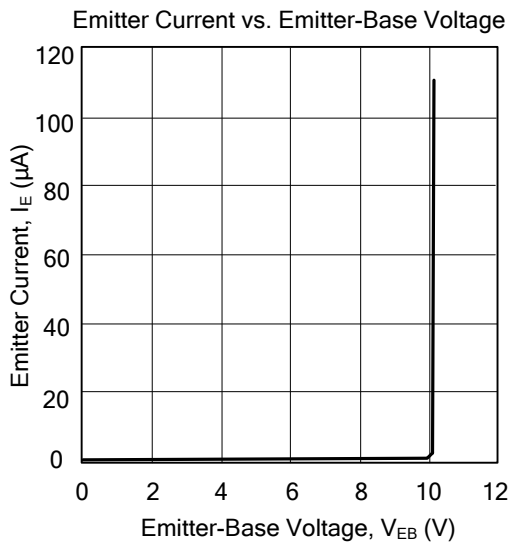
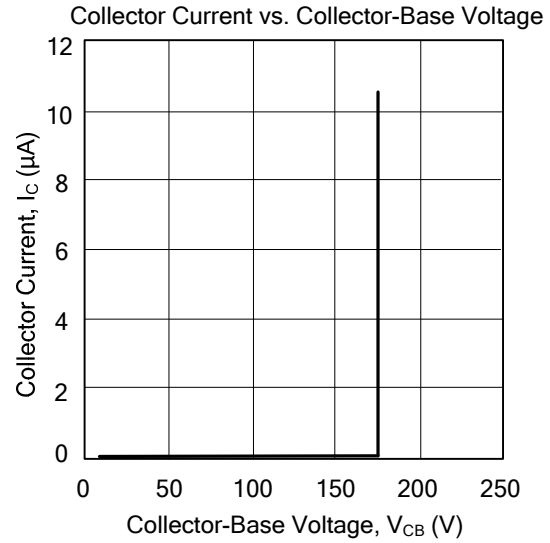
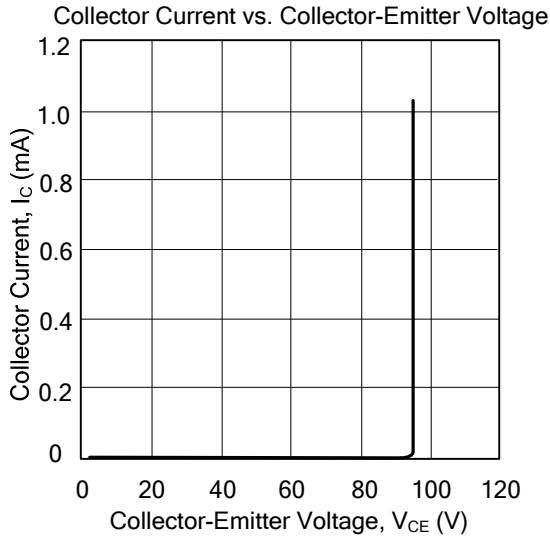
■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to Base Breakdown Voltage	BV_{CBO}	$I_C = 10\mu A, I_E = 0$	120			V
Collector to Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1mA, R_{BE} = \infty$	80			V
Emitter to Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu A, I_C = 0$	6			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 120V, I_E = 0$			500	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 6V, I_C = 0$			500	nA
DC Current Transfer Ratio	h_{FE1}	$V_{CE} = 5V, I_C = 150mA$	60		320	
	h_{FE2}	$V_{CE} = 5V, I_C = 500mA$	40			
Collector to Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 500mA, I_B = 50mA$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = 500mA, I_B = 50mA$			1.1	V
Gain Bandwidth Product	f_T	$V_{CE} = -5V, I_C = -150mA$		140		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		20		pF

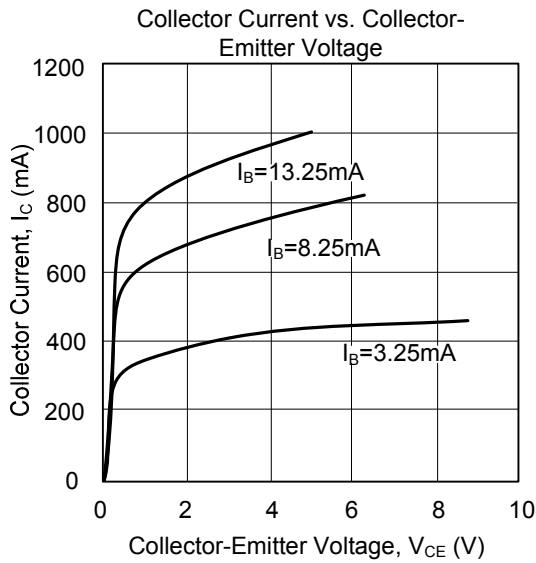
■ CLASSIFICATION OF h_{FE1}

RANK	B	C	D
RANGE	60-120	100-200	160-320

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS



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