



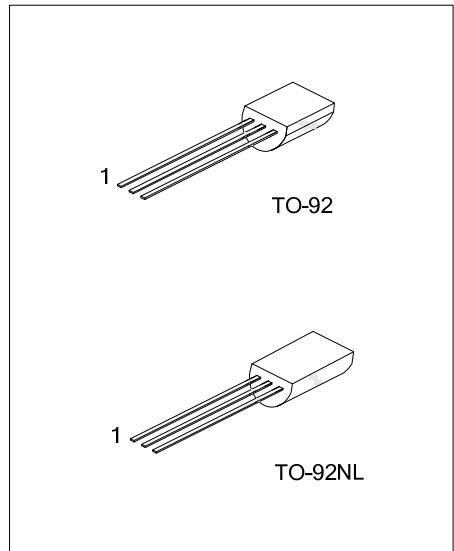
2SD468

NPN SILICON TRANSISTOR

LOW FREQUENCY POWER AMPLIFIER

■ FEATURES

- * Low frequency power amplifier
- * Complement to 2SB562



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD468L-x-T92-B	2SD468G-x-T92-B	TO-92	E	C	B	Tape Box
2SD468L-x-T92-K	2SD468G-x-T92-K	TO-92	E	C	B	Bulk
2SD468L-x-T9N-B	2SD468G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SD468L-x-T9N-K	2SD468G-x-T9N-K	TO-92NL	E	C	B	Bulk

Note: Pin Assignment: E: Emitter C: Collector B: Base

<p>2SD468L-x-T92-B</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92, T9N: TO-92NL (3) x: refer to Classification of h_{FE} (4) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ MARKING

TO-92	TO-92NL

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Collector Peak Current	I_{CP}	1.5	A
Collector Power Dissipation	P_C	0.9	W
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=10\mu\text{A}$, $I_E=0$	25			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $R_{BE}=\infty$	20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu\text{A}$, $I_C=0$	5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20\text{V}$, $I_E=0$			1	μA
DC Current Transfer Ratio	h_{FE}	$V_{CE}=2\text{V}$, $I_C=0.5\text{A}$ (Note)	85		240	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=0.8\text{A}$, $I_B=0.08\text{A}$ (Note)		0.2	0.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2\text{V}$, $I_C=0.5\text{A}$ (Note)		0.79	1	V
Gain Bandwidth Product	f_T	$V_{CE}=2\text{V}$, $I_C=0.5\text{A}$ (Note)		190		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		22		pF

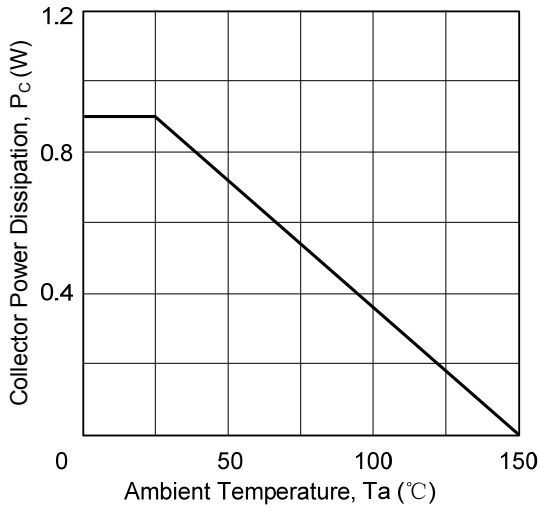
Note: Pulse test

■ CLASSIFICATION OF h_{FE}

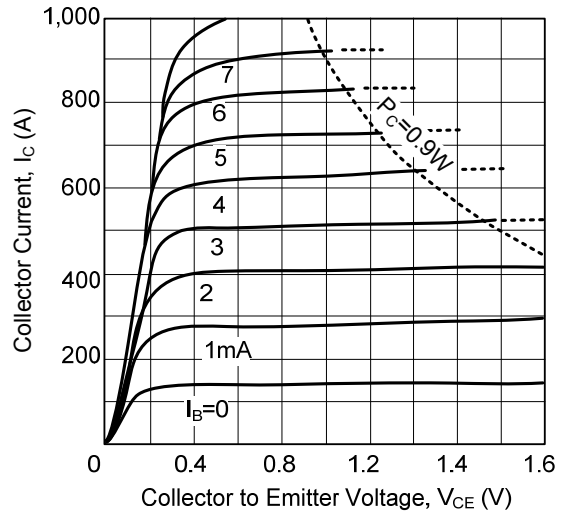
RANK	B	C
RANGE	85 - 170	120 - 240

TYPICAL CHARACTERISTICS

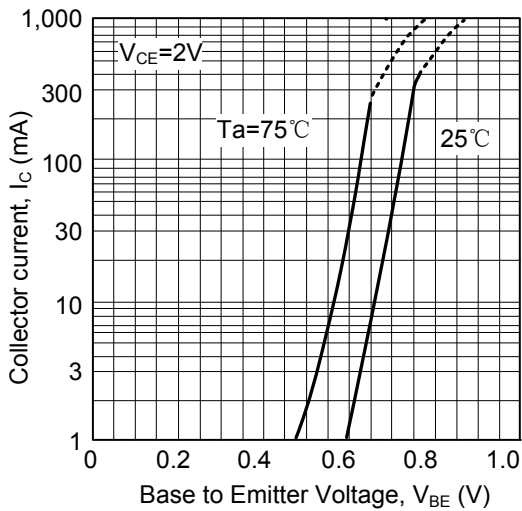
Maximum Collector Dissipation Curve



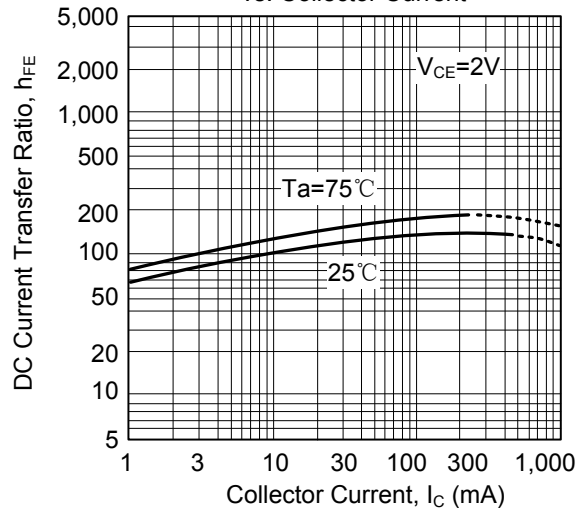
Typical Output Characteristics



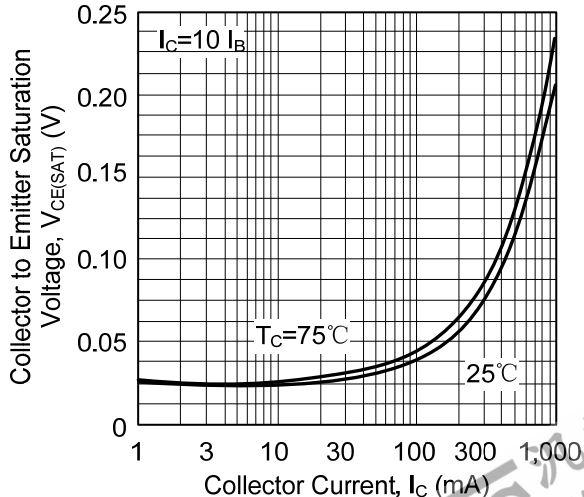
Typical Transfer Characteristics



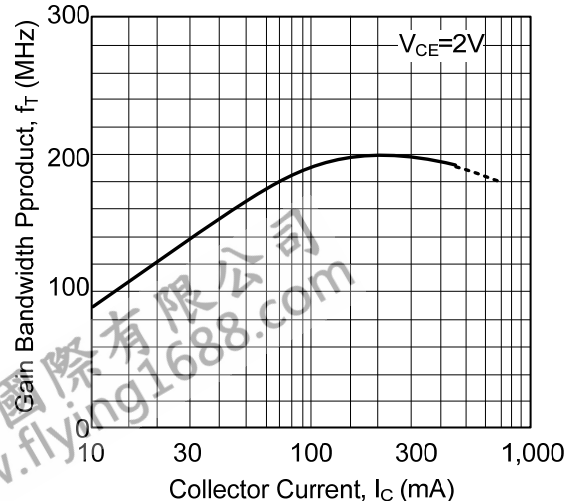
DC Current Transfer Ratio vs. Collector Current



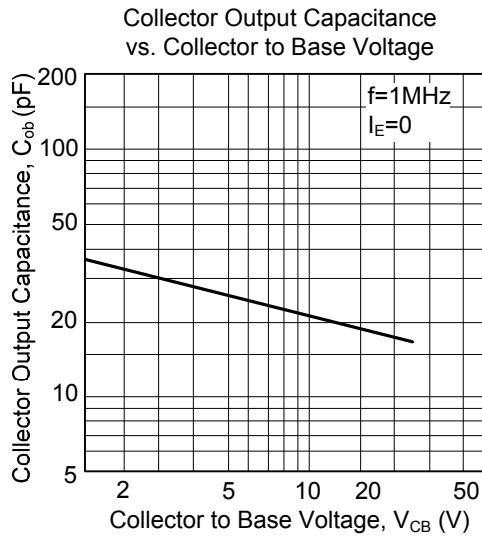
Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



■ TYPICAL CHARACTERISTICS(Cont.)



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