



2N6718

NPN SILICON TRANSISTOR

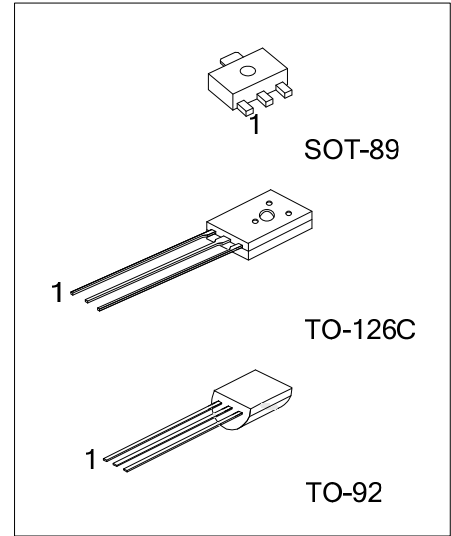
NPN GENERAL PLANAR TRANSISTOR

DESCRIPTION

The UTC **2N6718** is designed for general purpose medium power amplifier and switching applications.

FEATURES

- * High Power: 850mW
- * High Current: 1A



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free Plating	Halogen Free		1	2	3	
2N6718L-x-AB3-R	2N6718G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2N6718L-x-T6C-K	2N6718G-x-T6C-K	TO-126C	E	C	B	Bulk
2N6718L-x-T92-B	2N6718G-x-T92-B	TO-92	E	C	B	Tape Box
2N6718L-x-T92-K	2N6718G-x-T92-K	TO-92	E	C	B	Bulk

<p>2N6718L-x-AB3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel (2) AB3: SOT-89, T6C: TO-126C, T92: TO-92 (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (Continue)	I_C	1	A
Collector Current (Pulse)	I_C	2	A
Total Power Dissipation	SOT-89	0.5	W
	TO-126C	1.6	W
	TO-92	850	mW
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Operating Temperature	T_{OPR}	-40 ~ +125	$^{\circ}\text{C}$
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}	$I_C=100\mu\text{A}$	100			V
Collector-Emitter Breakdown Voltage (note)	BV_{CEO}	$I_C=1\text{mA}$	100			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu\text{A}$	5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=350\text{mA}, I_B=35\text{mA}$			350	mV
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80\text{V}$			100	nA
DC Current Gain	h_{FE1}	$V_{CE}=1\text{V}, I_C=50\text{mA}$	80			
	h_{FE2}	$V_{CE}=1\text{V}, I_C=250\text{mA}$	50		300	
	h_{FE3}	$V_{CE}=1\text{V}, I_C=500\text{mA}$	20			
Current Gain - Bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	50			MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			20	pF

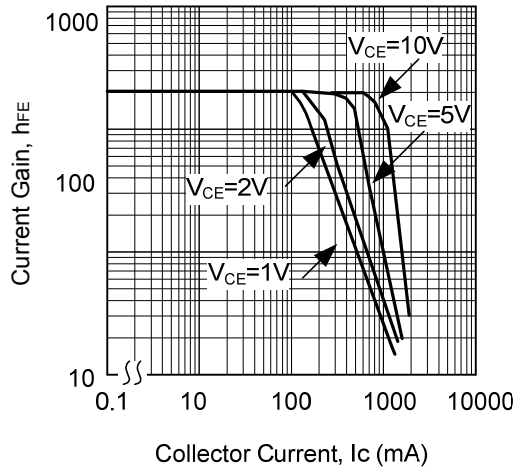
Note: Pulse test: PulseWidth $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

■ CLASSIFICATION OF h_{FE2}

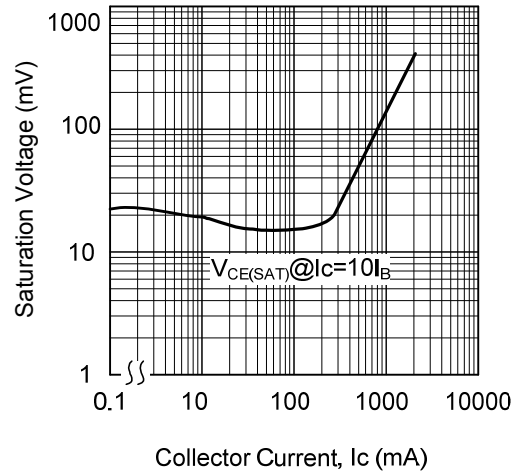
RANK	A	B
RANGE	50~115	95~300

TYPICAL CHARACTERISTICS

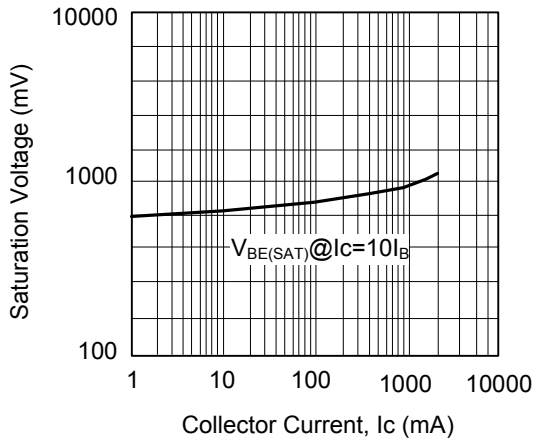
Current Gain vs. Collector Current



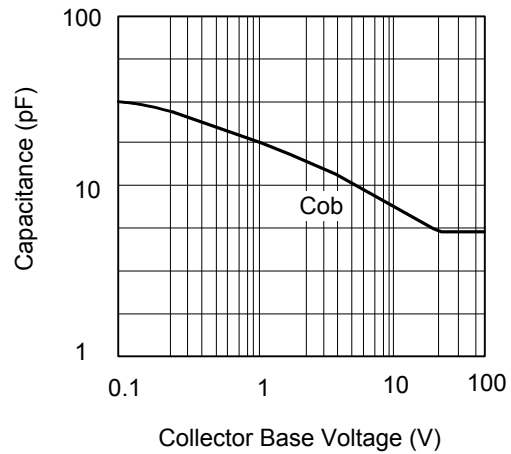
Saturation Voltage vs. Collector Current



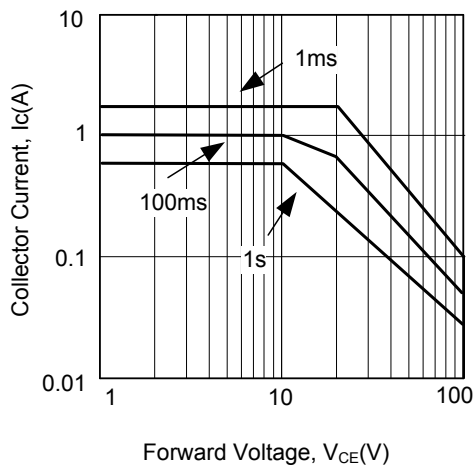
Saturation Voltage vs. Collector Current



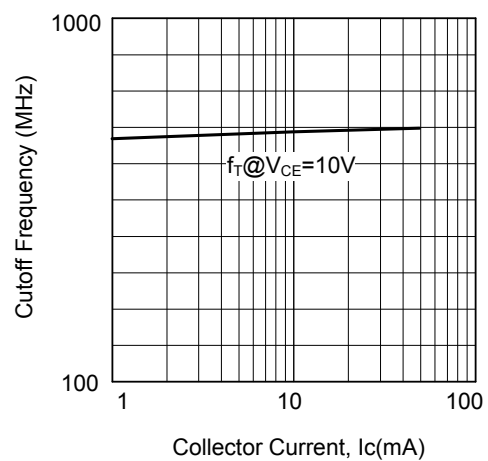
Collector Output Capacitance



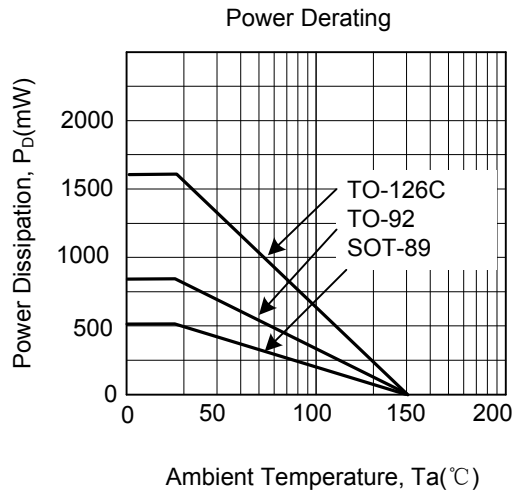
Safe Operating Area



Cutoff Frequency vs. Collector Current



■ TYPICAL CHARACTERISTICS



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