



## 2N6718

## NPN SILICON TRANSISTOR

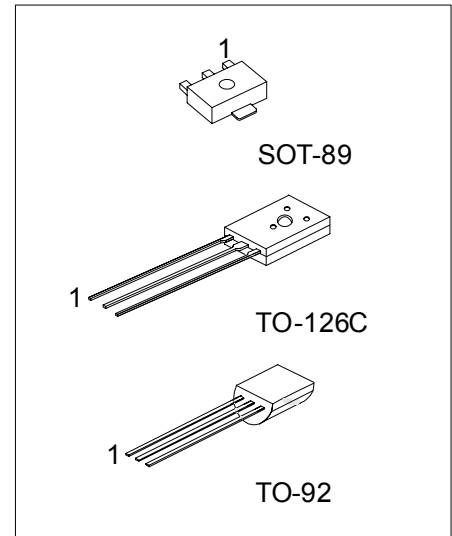
### NPN GENERAL PLANAR TRANSISTOR

#### DESCRIPTION

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

#### FEATURES

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



\*Pb-free plating product number: 2N6718L

#### ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2N6718-x-AB3-R	2N6718-x-AB3-R	SOT-89	B	C	E	Tape Reel
2N6718-x-T6C-K	2N6718-x-T6C-K	TO-126C	E	C	B	Bulk
2N6718-x-T92-B	2N6718-x-T92-B	TO-92	E	C	B	Tape Box
2N6718-x-T92-K	2N6718-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 <math>h_{FE2}</math>  (4) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	100	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current (Continue)	I <sub>C</sub>	1	A
Collector Current (Pulse)	I <sub>C</sub>	2	A
Total Power Dissipation	SOT-89	0.5	W
	TO-126C	1.6	W
	TO-92	850	mW
Junction Temperature	T <sub>J</sub>	+150	
Storage Temperature	T <sub>STG</sub>	-55 ~ +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.

■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =100uA	100			V
Collector-Emitter Breakdown Voltage (note)	BV <sub>CEO</sub>	I <sub>C</sub> =1mA	100			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =10uA	5			V
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =350mA, I <sub>B</sub> =35mA			350	mV
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =80V			100	nA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =50mA	80			
	h <sub>FE2</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =250mA	50		300	
	h <sub>FE3</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =500mA	20			
Current Gain - Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=100MHz	50			MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz			20	pF

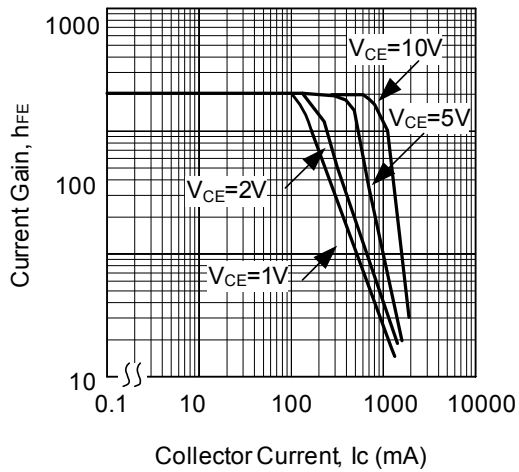
Note: Pulse test: PulseWidth≤380μs, Duty Cycle≤2%

■ CLASSIFICATION OF h<sub>FE2</sub>

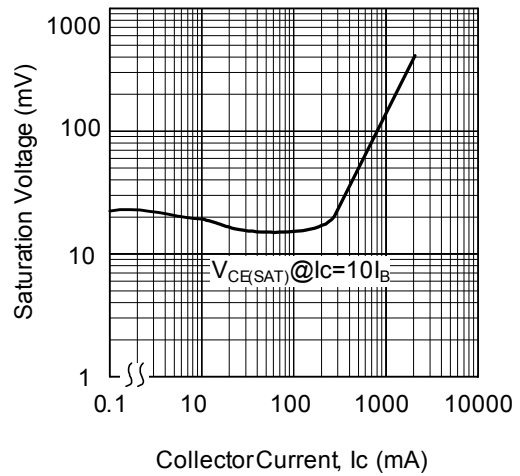
RANK	A	B
RANGE	50~115	95~300

## TYPICAL CHARACTERISTICS

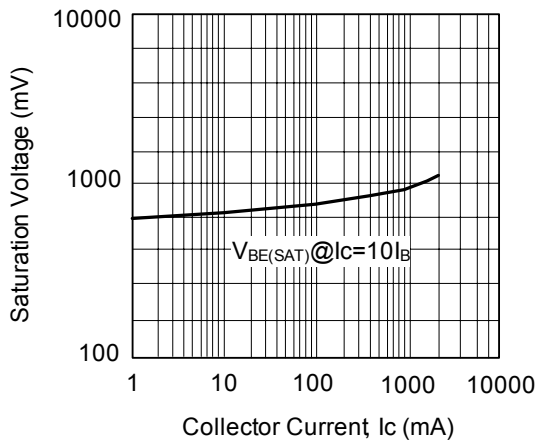
Current Gain vs. Collector Current



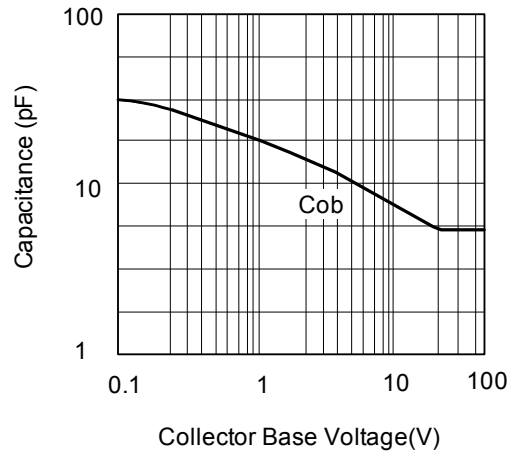
Saturation Voltage vs. Collector Current



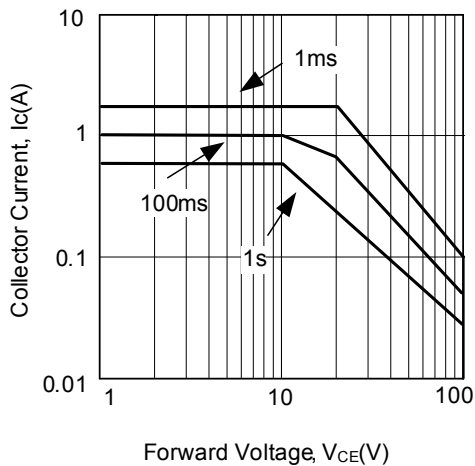
Saturation Voltage vs. Collector Current



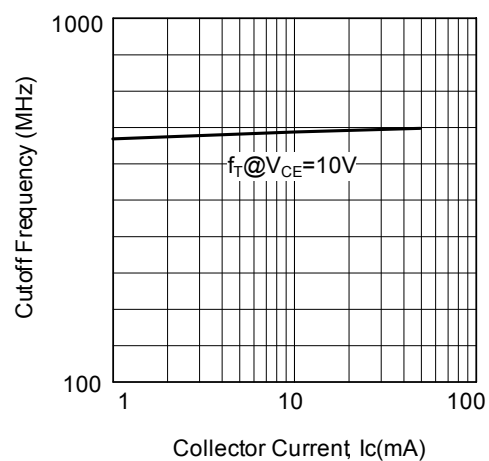
Collector Output Capacitance



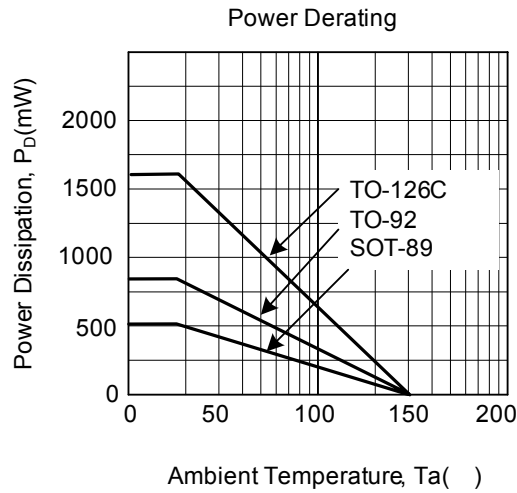
Safe Operating Area



Cutoff Frequency vs. Collector Current



■ TYPICAL CHARACTERISTICS



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