



# 2N6718

## NPN SILICON TRANSISTOR

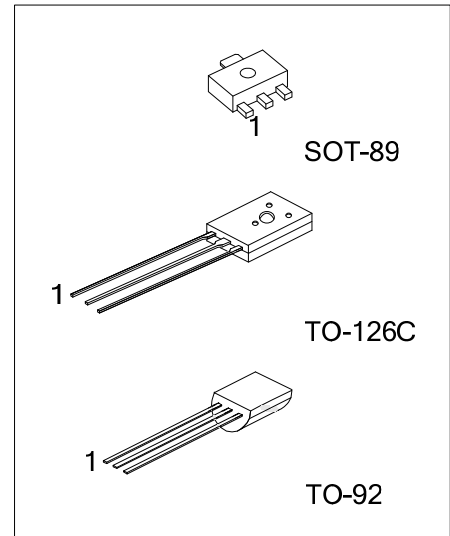
### NPN GENERAL PLANAR TRANSISTOR

■ 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	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

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

<p>2N6718G-x-AB3-R</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) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-89	TO-126C	TO-92

■ 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)

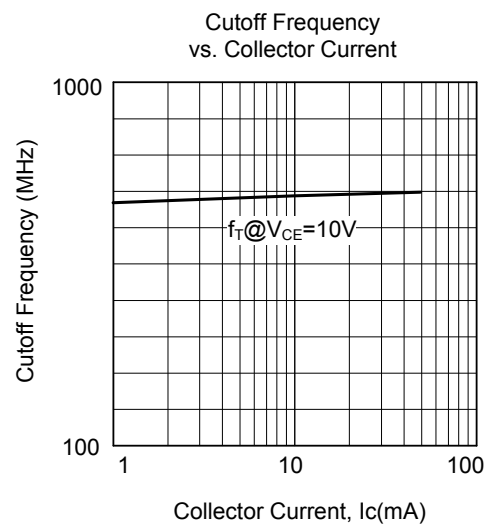
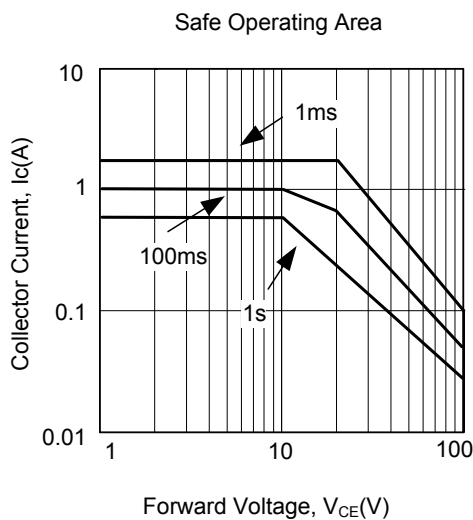
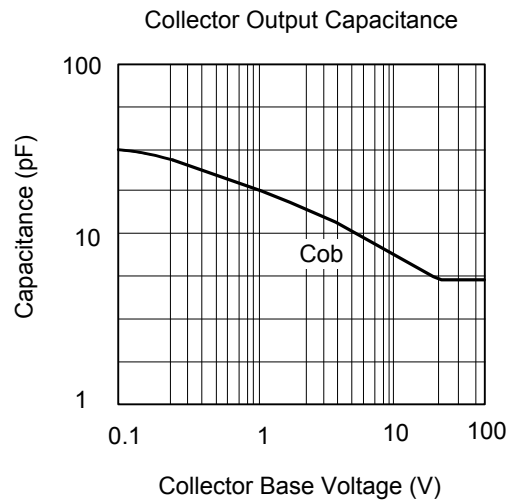
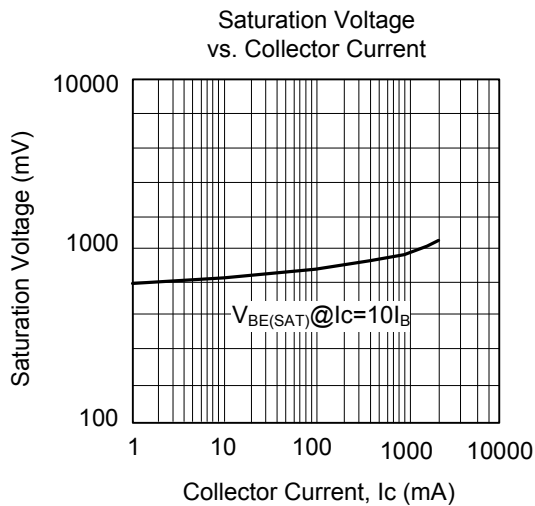
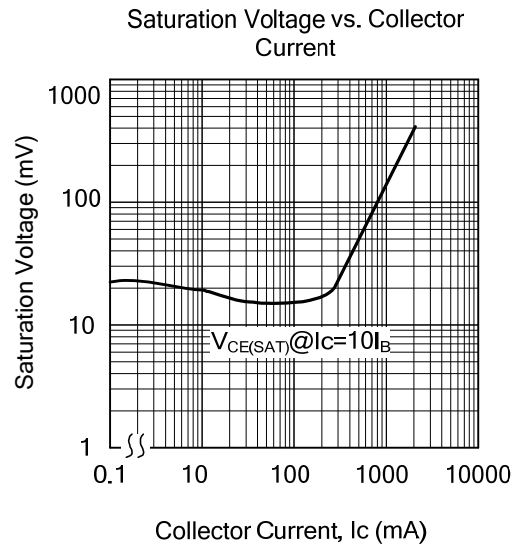
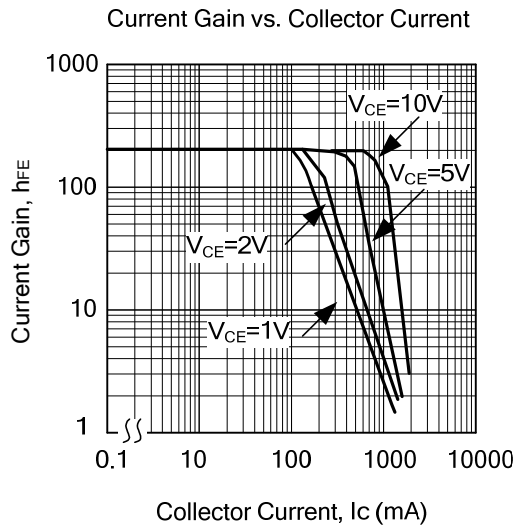
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu\text{A}$	100			V
Collector-Emitter Breakdown Voltage (note)	$BV_{CEO}$	$I_C=1\text{mA}$	100			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=10\mu\text{A}$	5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=350\text{mA}, I_B=35\text{mA}$			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%

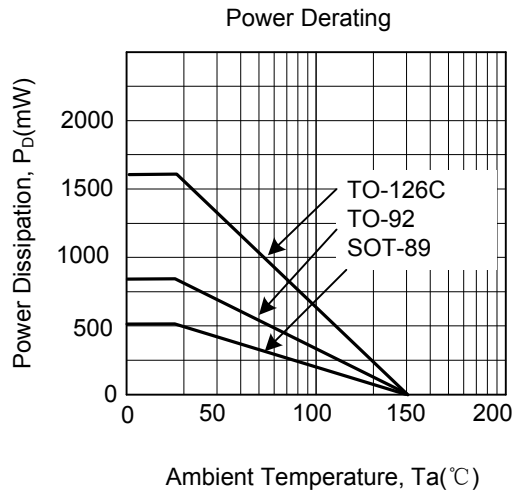
■ CLASSIFICATION OF  $h_{FE2}$

RANK	A	B
RANGE	50~115	95~300

## TYPICAL CHARACTERISTICS



### ■ TYPICAL CHARACTERISTICS



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