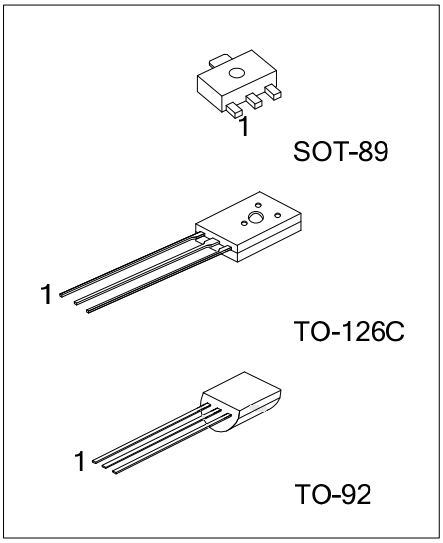
2N6718

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

2N6718L-x-AB3-R
(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Plating

(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

■ ABSOLUTE MAXIMUM RATING (T_A=25°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	P_D	0.5	W
	TO-126C		1.6	W
	TO-92		850	mW
Junction Temperature		T_J	+150	°C
Operating Temperature		T_{OPR}	-40 ~ +125	°C
Storage Temperature		T_{STG}	-55 ~ +150	°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°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100uA	100			V
Collector-Emitter Breakdown Voltage (note)	BV_{CEO}	I_C=1mA	100			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA	5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=350mA, I_B=35mA			350	mV
Collector Cut-Off Current	I_{CBO}	V_{CB}=80V			100	nA
DC Current Gain	h_{FE1}	V_{CE}=1V, I_C=50mA	80			
	h_{FE2}	V_{CE}=1V, I_C=250mA	50		300	
	h_{FE3}	V_{CE}=1V, I_C=500mA	20			
Current Gain - Bandwidth Product	f_T	V_{CE}=10V, I_C=50mA, f=100MHz	50			MHz
Output Capacitance	Cob	V_{CB}=10V, I_E=0, f=1MHz			20	pF

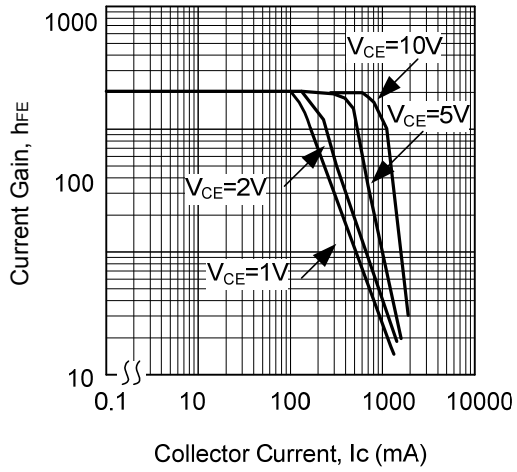
Note: Pulse test: PulseWidth≤380μs, Duty Cycle≤2%

■ CLASSIFICATION OF h_{FE2}

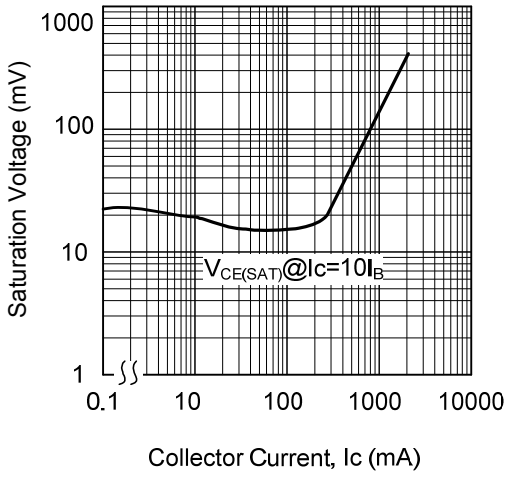
RANK	A	B
RANGE	50~115	95~300

■ TYPICAL CHARACTERISTICS

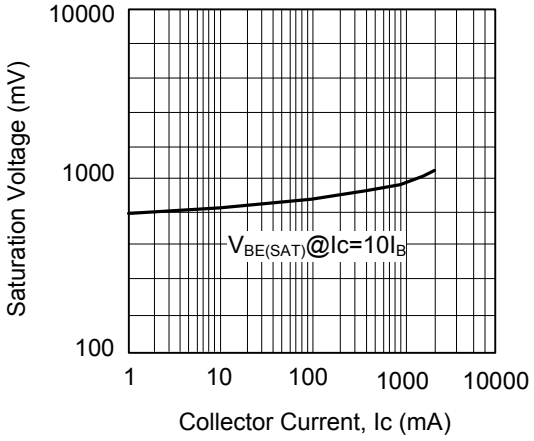
Current Gain vs. Collector Current



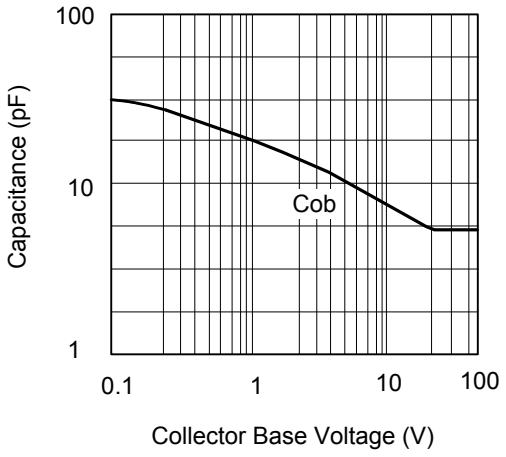
Saturation Voltage vs. Collector Current



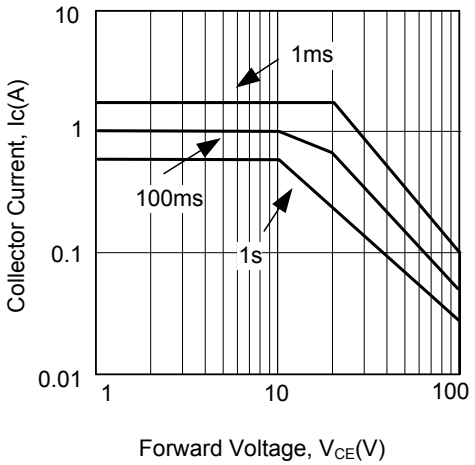
Saturation Voltage vs. Collector Current



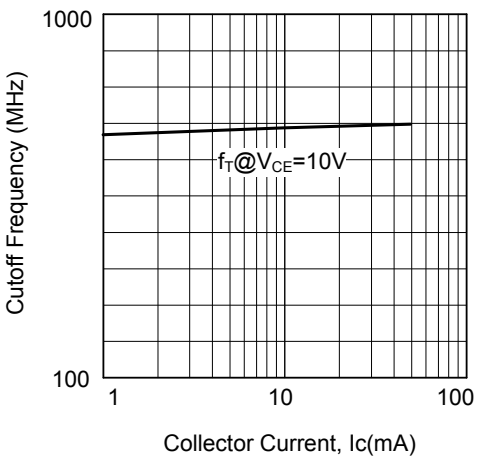
Collector Output Capacitance



Safe Operating Area



Cutoff Frequency vs. Collector Current



■ TYPICAL CHARACTERISTICS