



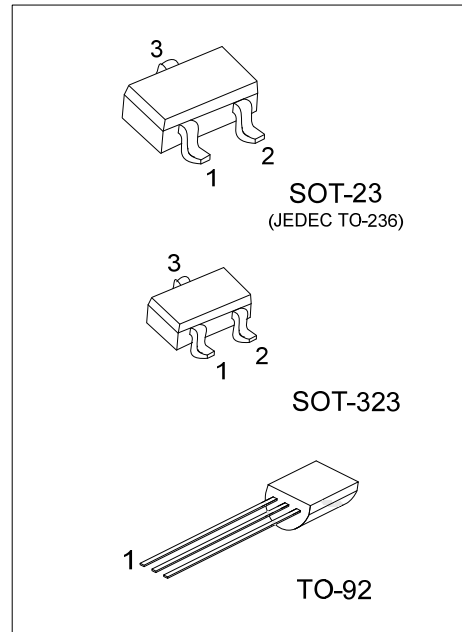
2SC2712

NPN SILICON TRANSISTOR

AUDIO FREQUENCY AMPLIFIER NPN TRANSISTOR

■ FEATURES

- * High Voltage and High Current:
 $V_{CE0}=50V, I_C=150mA$ (Max.)
- * Excellent h_{FE} Linearity:
 $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95$ (Typ.)
- * High h_{FE}
- * Low Noise



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC2712L-x-AE3-R	2SC2712G-x-AE3-R	SOT-23	B	E	C	Tape Reel
2SC2712L-x-AL3-R	2SC2712G-x-AL3-R	SOT-323	B	E	C	Tape Reel
2SC2712L-x-T92-R	2SC2712G-x-T92-R	TO-92	E	C	B	Tape Reel

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

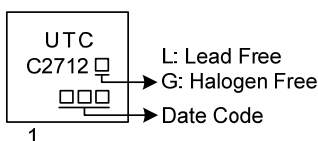
<p>2SC2712G-x-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323, T92: TO-92 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

For SOT-23/SOT-323

2SC2712-Y	2SC2712-G	2SC2712-L
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>

For TO-92



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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	60	V
Collector-Emitter Voltage		V_{CEO}	50	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	150	mA
Base Current		I_B	30	mA
Collector Power Dissipation	SOT-23/SOT-323	P_C	150	mW
	TO-92		625	mW
Junction Temperature		T_J	+125	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +125	$^\circ\text{C}$

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.

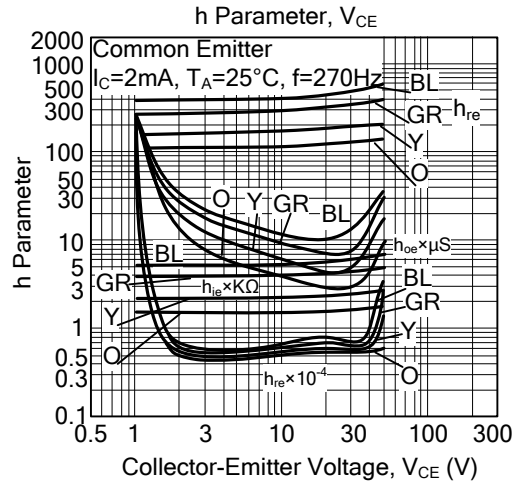
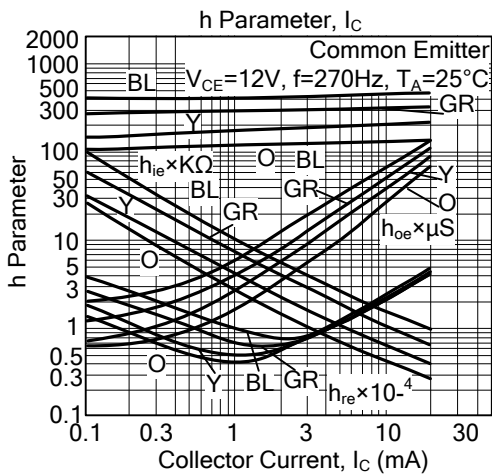
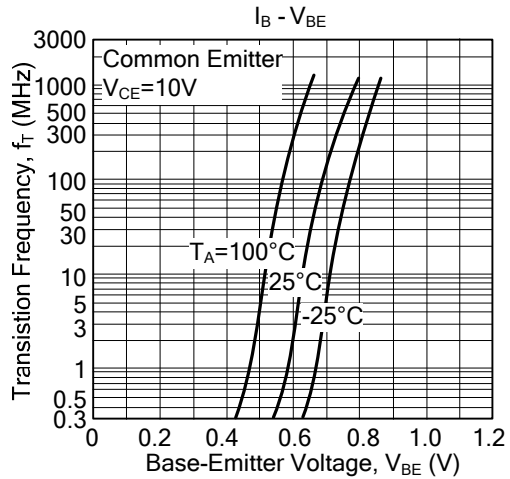
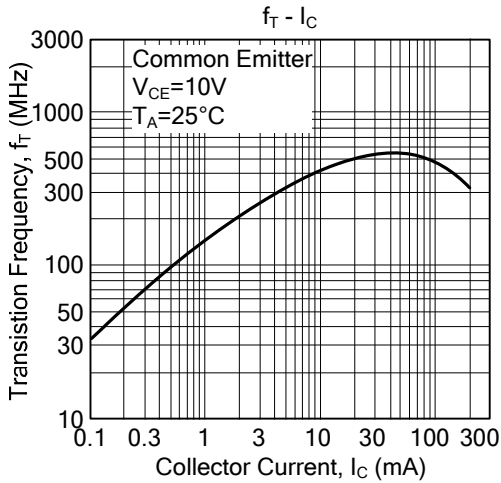
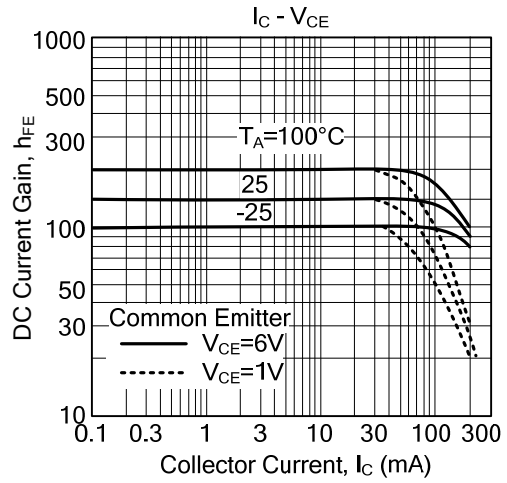
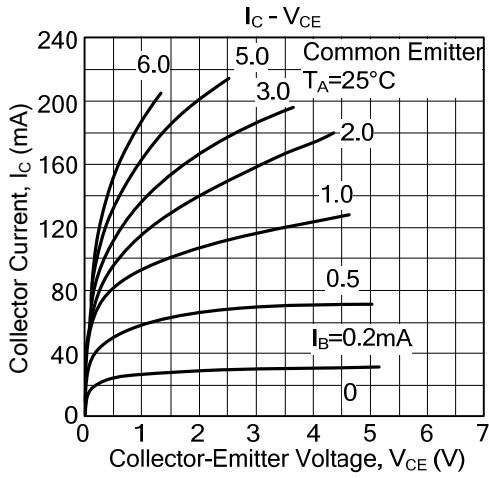
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise stated)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=6\text{V}, I_C=2\text{mA}$	70		700	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.1	0.25	V
Transistor Frequency	f_T	$V_{CE}=10\text{V}, I_C=1\text{mA}$	80			MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6\text{V}, I_C=0.1\text{mA}$ $f=1\text{kHz}, R_g=10\text{K}\Omega$		1.0	10	dB

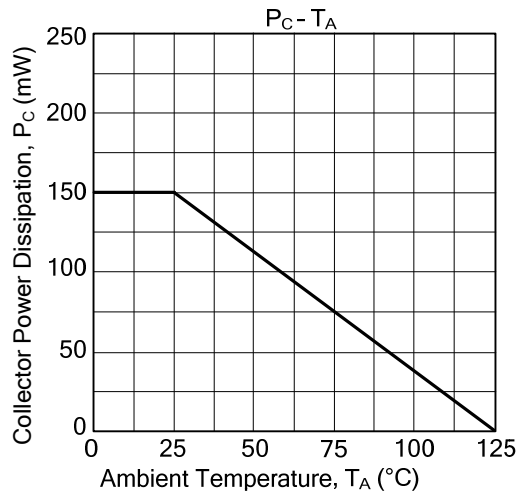
■ CLASSIFICATION OF h_{FE}

RANK	Y	G	L
RANGE	120~240	200~400	350~700

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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