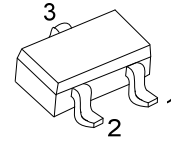
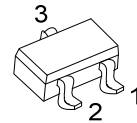


**2SC2712****NPN SILICON TRANSISTOR****AUDIO FREQUENCY
AMPLIFIER NPN TRANSISTOR**■ **FEATURES**

- * 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



SOT-23



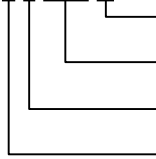
SOT-323

Lead-free: 2SC2712L
Halogen-free: 2SC2712G

■ **ORDERING INFORMATION**

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SC2712-x-AE3-R	2SC2712L-x-AE3-R	2SC2712G-x-AE3-R	SOT-23	E	B	C	Tape Reel
2SC2712-x-AL3-R	2SC2712L-x-AL3-R	2SC2712G-x-AL3-R	SOT-323	E	B	C	Tape Reel

2SC2712L-x-AE3-R



- (1) Packing Type
- (2) Package Type
- (3) Rank
- (4) Lead Plating

(1) R: Tape Reel

(2) AE3: SOT-23, AL3: SOT-323

(3) x: refer to Classification of h_{FE}

(4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ **MARKING**

2SC2712-Y	2SC2712-G	2SC2712-L
 LY L: Lead Free G: Halogen Free	 LG L: Lead Free G: Halogen Free	 LL L: Lead Free G: Halogen Free

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°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	P_C	150	mW
Junction Temperature	T_J	+125	°C
Storage Temperature	T_{STG}	-55 ~ +125	°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 (Ta=25°C, unless otherwise stated)

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

■ CLASSIFICATION OF h_{FE}

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

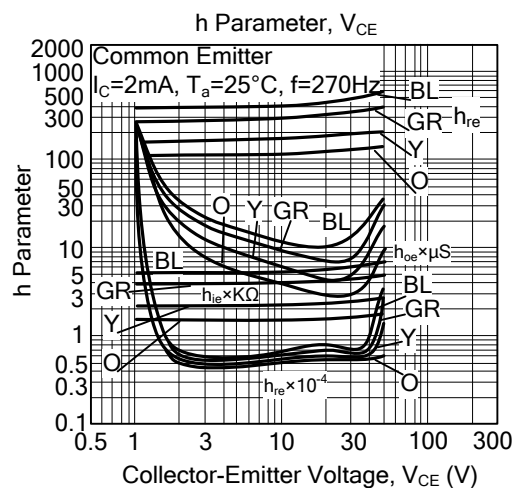
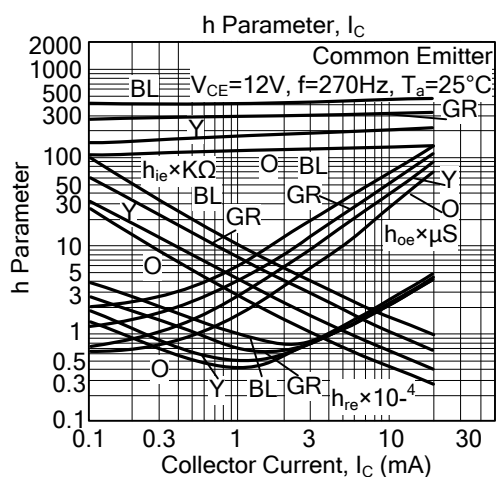
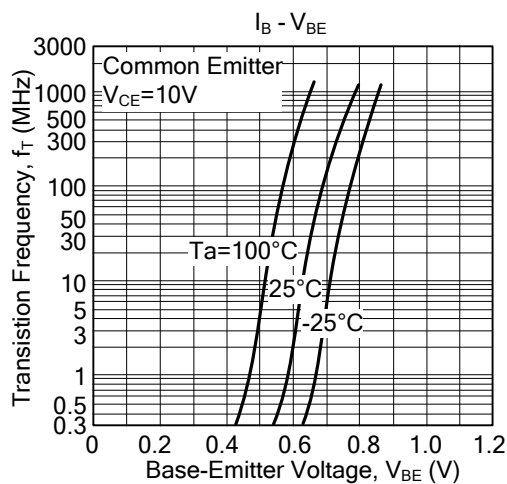
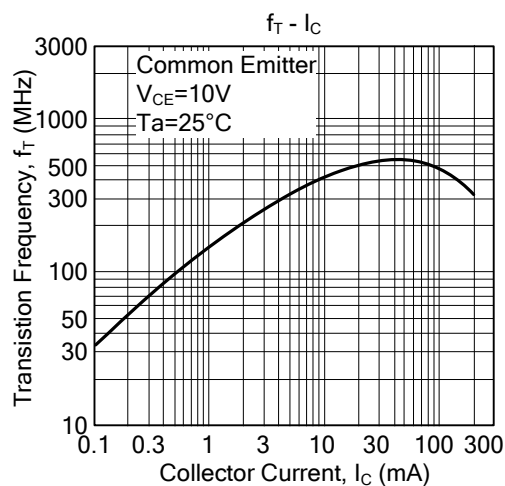
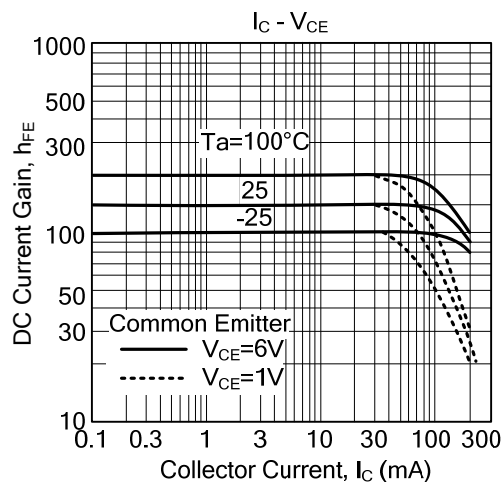
Common Emitter
 $T_a = 25^\circ\text{C}$

Collector Current, I_C (mA)

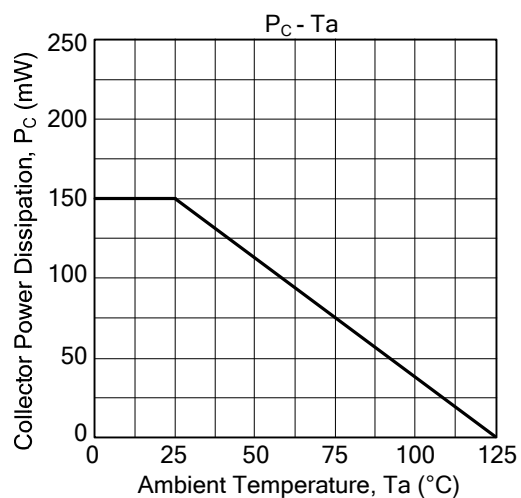
Collector-Emitter Voltage, V_{CE} (V)

$I_B = 0.2\text{mA}$

Curves labeled: 6.0, 5.0, 3.0, 2.0, 1.0, 0.5, 0



■ TYPICAL CHARACTERISTICS(Cont.)



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