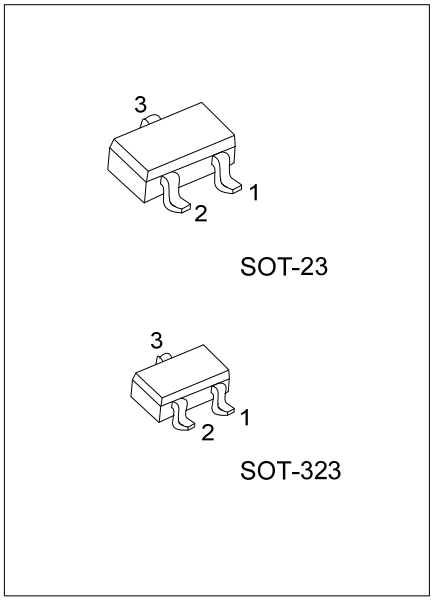
2SC2712

NPN SILICON TRANSISTOR

AUDIO FREQUENCY AMPLIFIER NPN TRANSISTOR



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

■ FEATURES

* High Voltage and High Current:
  V_{CEO}=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
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.

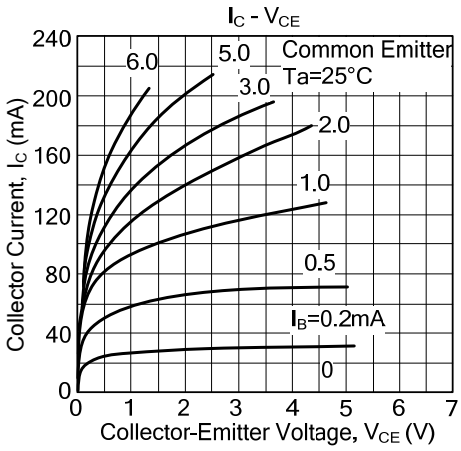
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise stated)

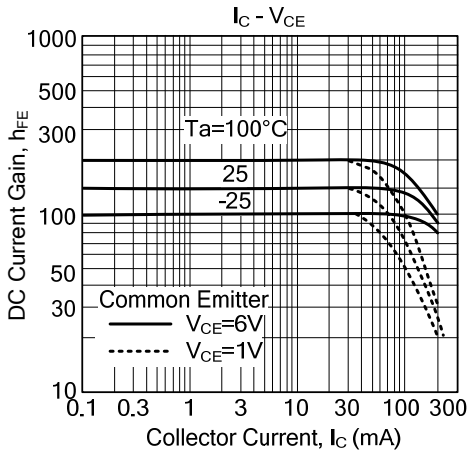
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=60V, I_E=0			0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=6V, I_C=2mA	70		700	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		0.1	0.25	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, Rg=10KΩ		1.0	10	dB

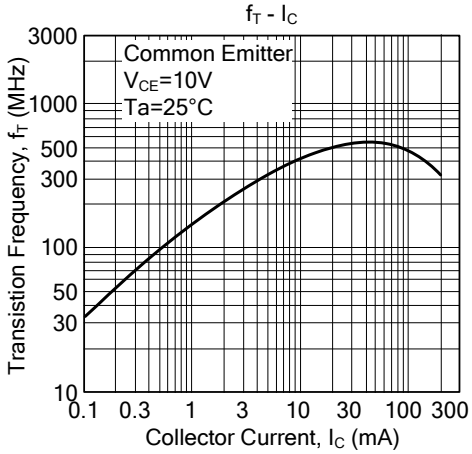
■ CLASSIFICATION OF h_{FE}

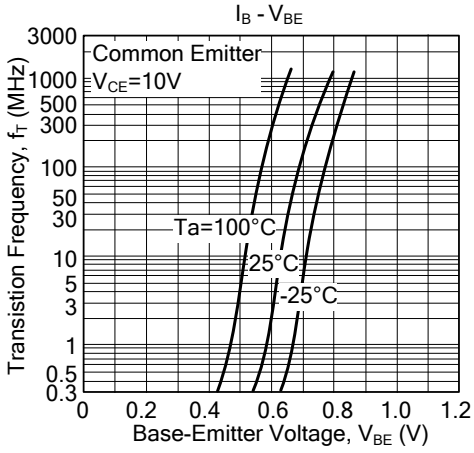
RANK	Y	G	L
RANGE	120~240	200~400	350~700

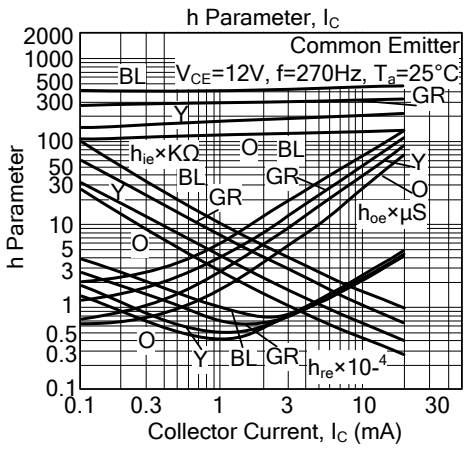
■ TYPICAL CHARACTERISTICS

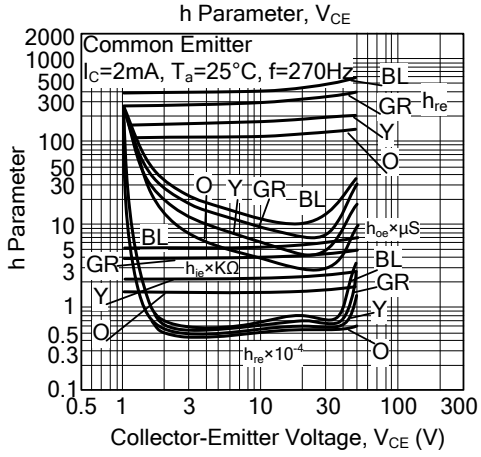












■ TYPICAL CHARACTERISTICS(Cont.)