

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

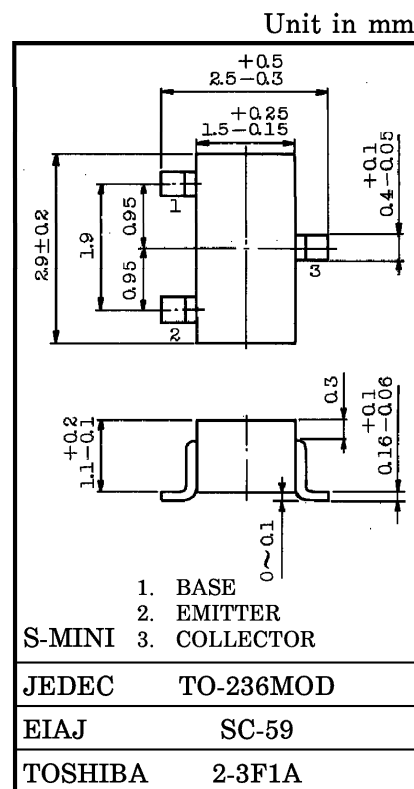
## 2SC2712

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS.

- 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  $h_{FE}$  :  $h_{FE}=70\sim700$
- Low Noise :  $NF=1dB$  (Typ.),  $10dB$  (Max.)
- Complementary to 2SA1162
- Small Package

MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	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	$^\circ C$
Storage Temperature Range	$T_{stg}$	$-55\sim125$	$^\circ C$



Weight : 0.012g

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=60V$ , $I_E=0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V$ , $I_C=0$	—	—	0.1	$\mu A$
DC Current Gain	$h_{FE}(\text{Note})$	$V_{CE}=6V$ , $I_C=2mA$	70	—	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ , $I_B=10mA$	—	0.1	0.25	V
Transition 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

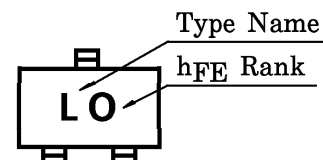
Note :  $h_{FE}$  Classification

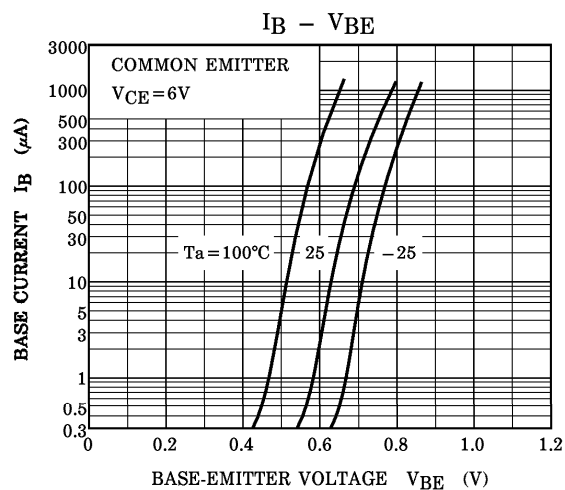
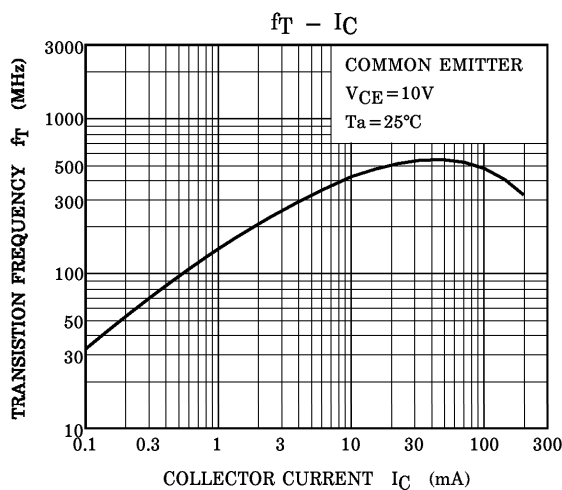
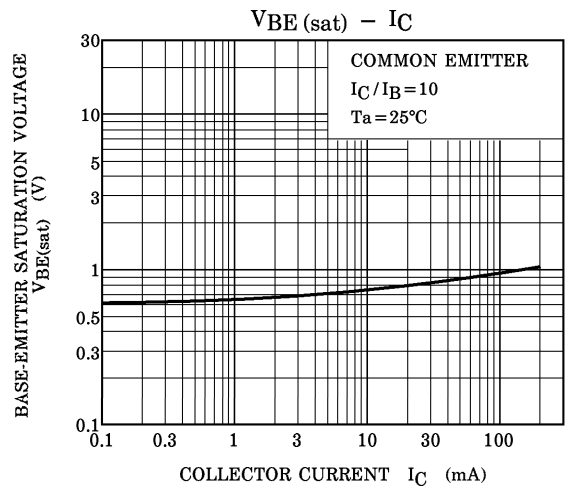
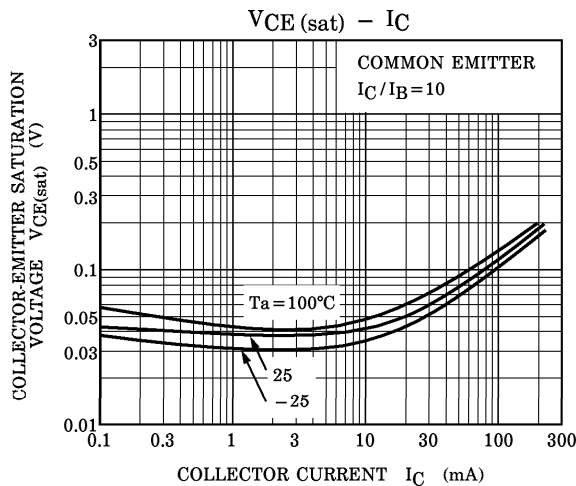
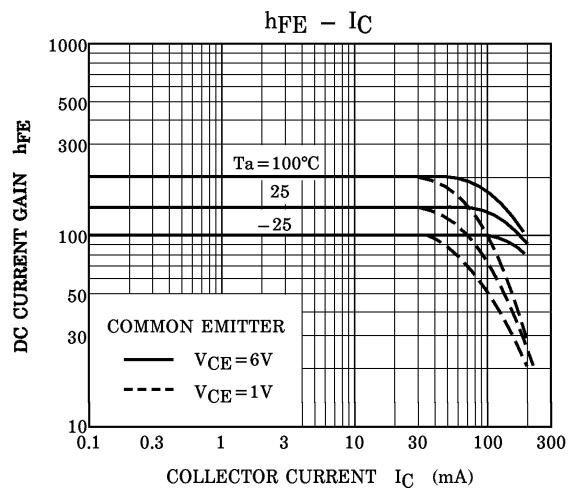
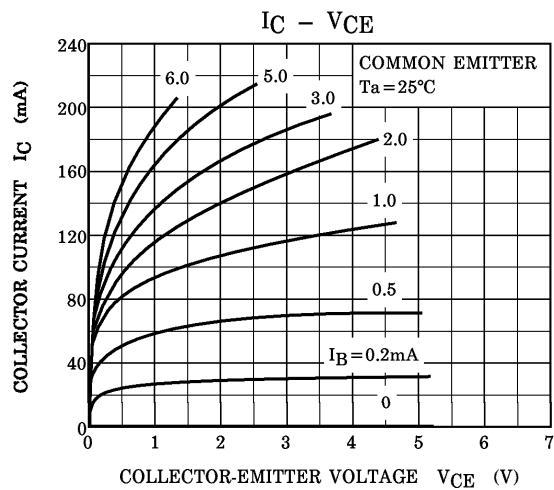
O (O) : 70~140, Y (Y) : 120~240, GR (G) : 200~400,

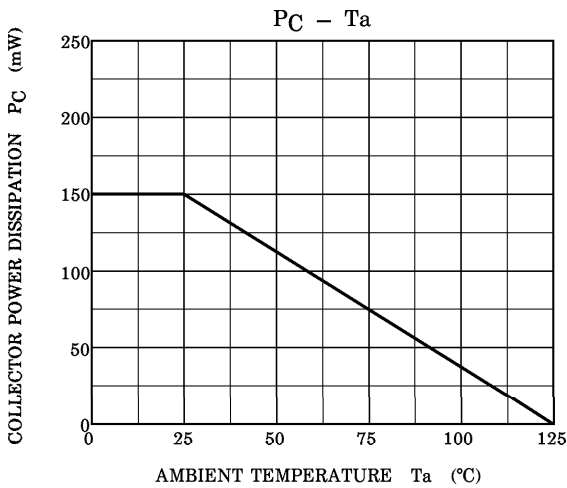
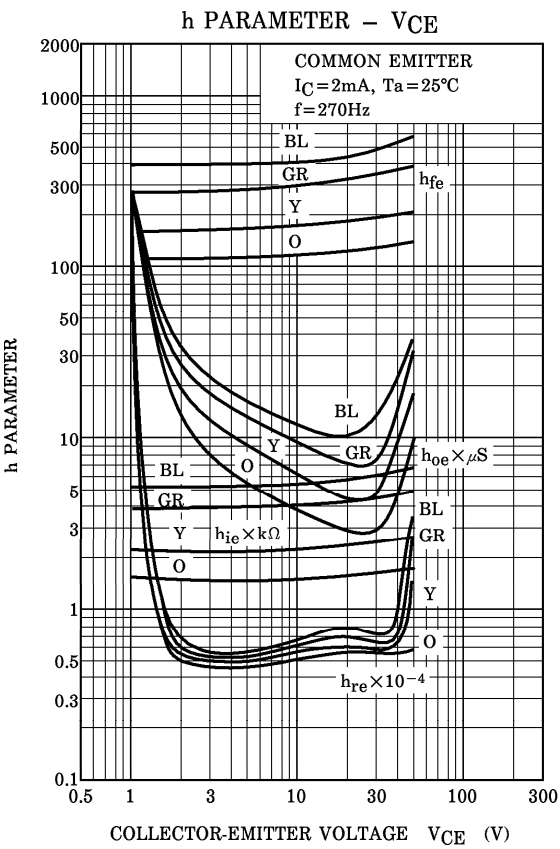
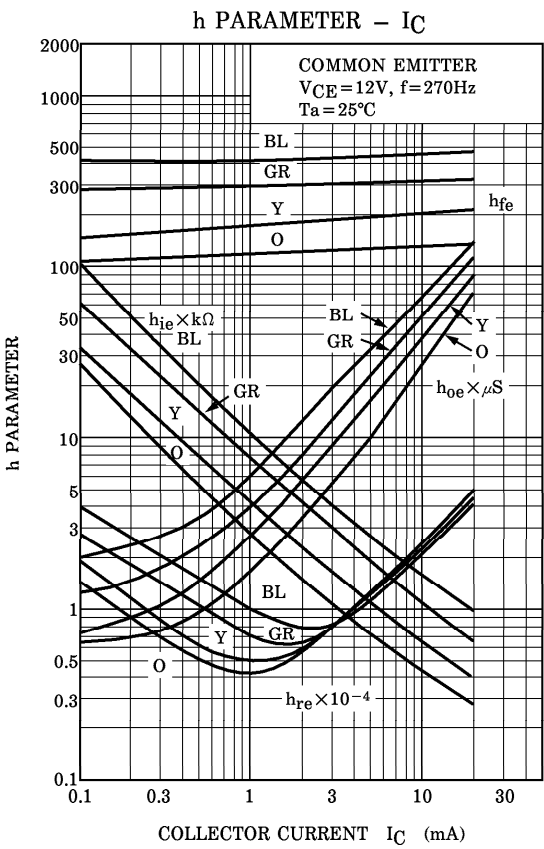
BL (L) : 350~700

( ) Marking Symbol

MARKING







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