Elektronische Bauelemente

EMX1

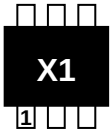
0.15 W, 150 mA, 60 V
Plastic-Encapsulated
General Purpose Transistors (Dual)

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

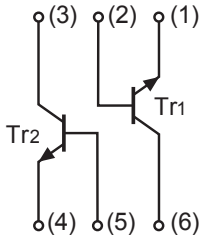
FEATURES

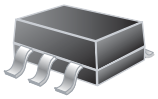
- Two 2SC2412K chips in a SOT-563 package.
- Mounting possible with SOT-563 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area can be cut in half.

MARKING

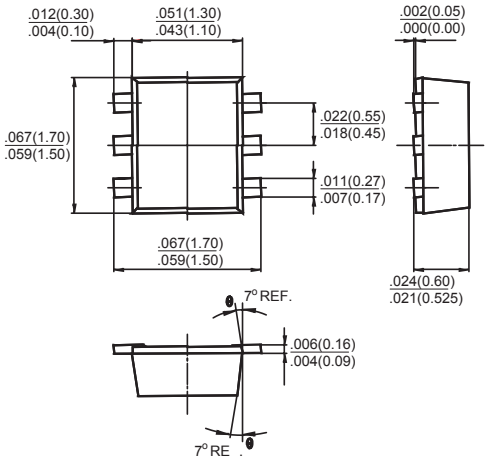


EQUIVALENT CIRCUIT





SOT-563



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current – Continuous	I_C	0.15	A
Collector Power Dissipation	P_C	0.15	W
Junction & Storage temperature	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	I_C=50μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	50	-	-	V	I_C=1mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	7	-	-	V	I_E=50μA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	V_{CB}=60V, I_E=0
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	V_{EB}=7V, I_C=0
DC Current Gain	h_{FE}	120	-	560		V_{CE}=6V, I_C=1mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.4	V	I_C=50mA, I_B=5mA
Transition Frequency	f_T	-	180	-	MHz	V_{CE}=12V, I_C=2mA, f=100MHz
Collector Output Capacitance	C_{ob}	-	2.0	3.5	pF	V_{CB}=12V, I_E=0, f=1MHz

TYPICAL CHARACTERISTICS

EMX1

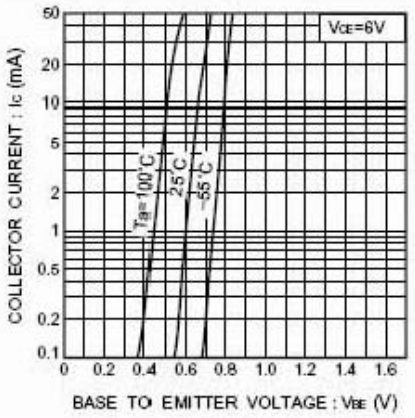


Fig.1 Grounded emitter propagation characteristics

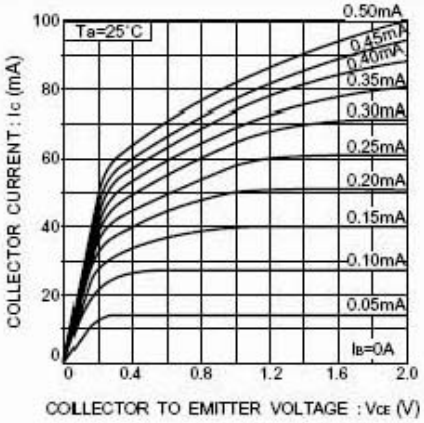


Fig.2 Grounded emitter output characteristics (I)

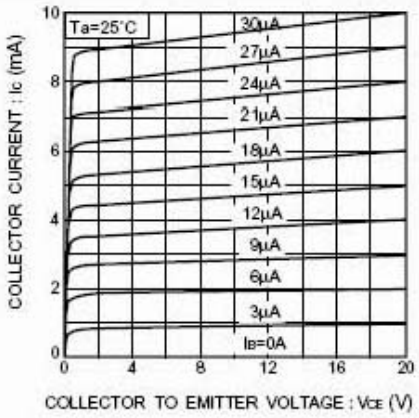


Fig.3 Grounded emitter output characteristics (II)

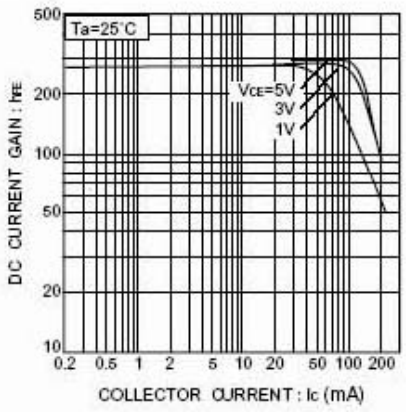


Fig.4 DC current gain vs. collector current (I)

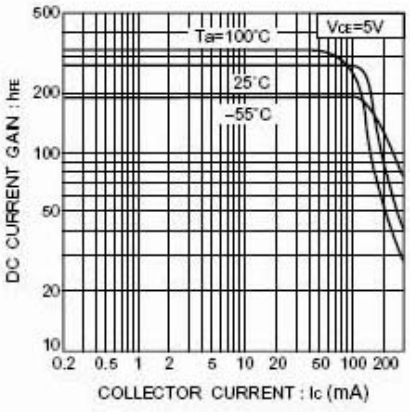


Fig.5 DC current gain vs. collector current (II)

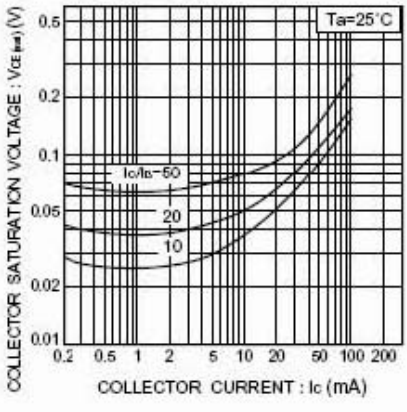


Fig.6 Collector-emitter saturation voltage vs. collector current

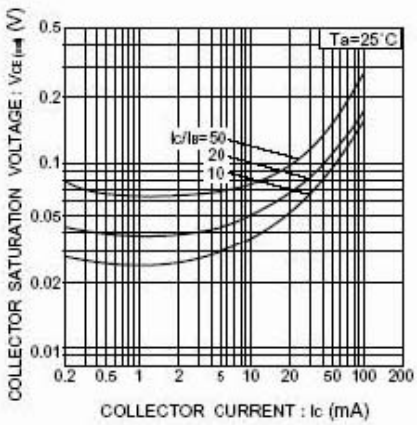


Fig.7 Collector-emitter saturation voltage vs. collector current (I)

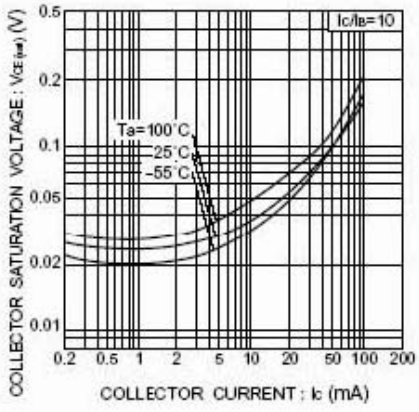


Fig.8 Collector-emitter saturation voltage vs. collector current (II)

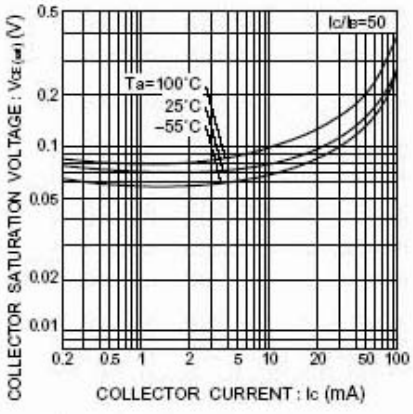


Fig.9 Collector-emitter saturation voltage vs. collector current (III)

TYPICAL CHARACTERISTICS (cont'd)

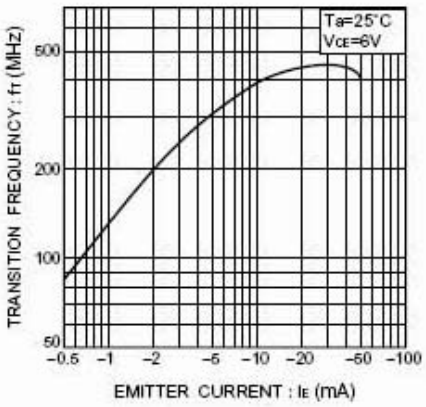


Fig.10 Gain bandwidth product vs. emitter current

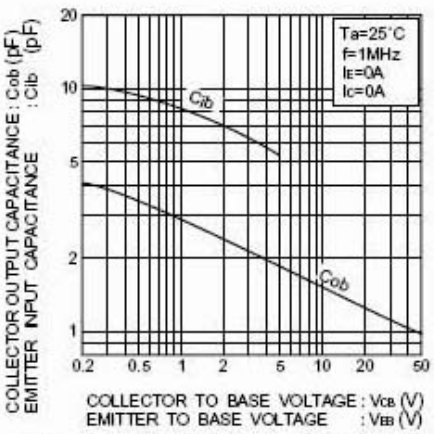


Fig.11 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

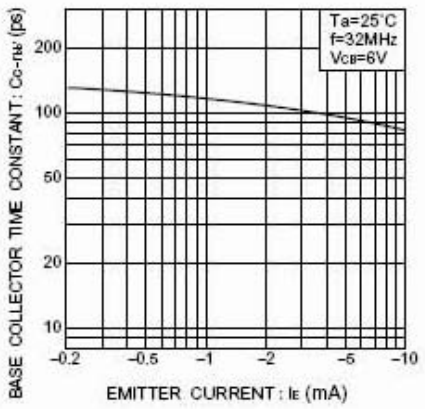


Fig.12 Base-collector time constant vs. emitter current