

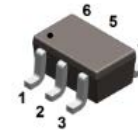
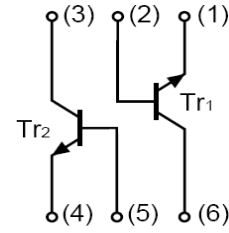


FEATURES

- Two 2SC2412K chips in a SOT-363 package.
- Mounting possible with SOT-363 automatic machines.
- Transistor elements are independent, eliminating Interference.

APPLICATIONS

- Dual NPN small signal surface mount transistor.



SOT-363

ORDERING INFORMATION

Type No.	Marking	Package Code
UMX1N	X1	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	150	mA
P_D	Power Dissipation	150	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C



UMX1N

Dual Bipolar Transistor(NPN+NPN)



ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A$ $I_E=0$	60	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$ $I_B=0$	50	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A$ $I_C=0$	7	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=60V$ $I_E=0$	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{CB}=7V$ $I_C=0$	-	0.1	μA
DC current gain	h_{FE}	$V_{CE}=6V$ $I_C=1mA$	110	630	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA$ $I_B=5mA$	-	0.4	V
Transition frequency	f_T	$V_{CE}=12V, I_E=-2mA, f=100MHz$	180		MHz
Output Capacitance	C_{obo}	$V_{CB}=12V, f=1.0MHz, I_E=0$	-	3.5	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

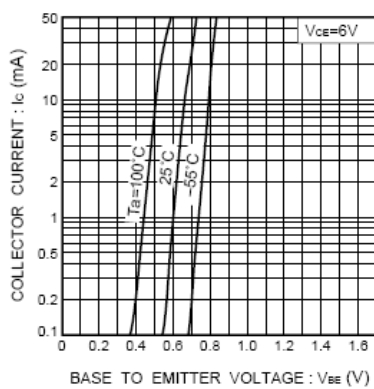


Fig.1 Grounded emitter propagation characteristics

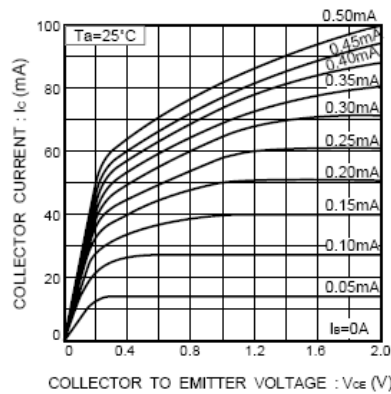


Fig.2 Grounded emitter output characteristics (I)

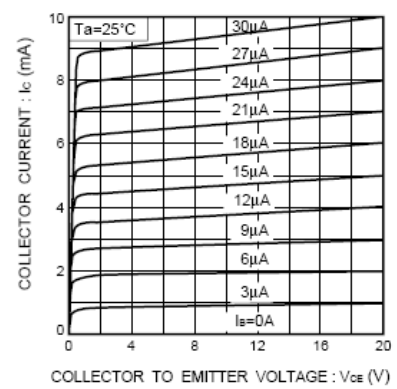


Fig.3 Grounded emitter output characteristics (II)

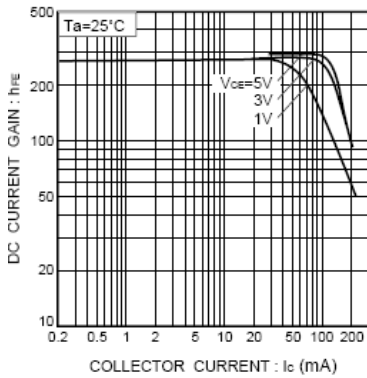


Fig.4 DC current gain vs. collector current (I)

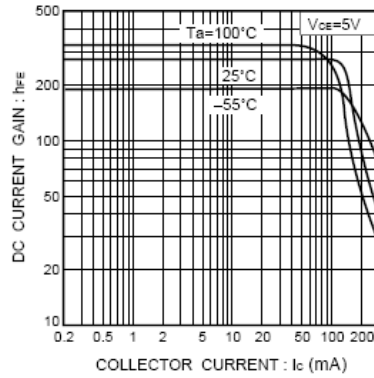


Fig.5 DC current gain vs. collector current (II)

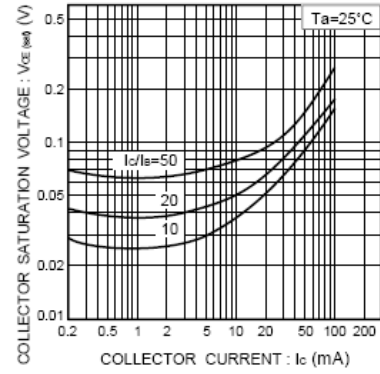


Fig.6 Collector-emitter saturation voltage vs. collector current

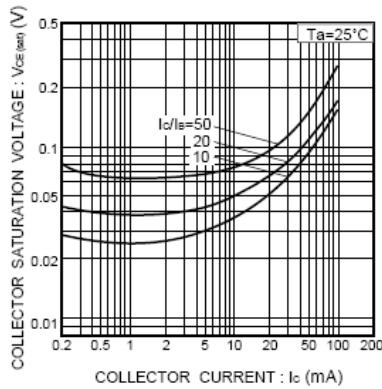


Fig.7 Collector-emitter saturation voltage vs. collector current (I)

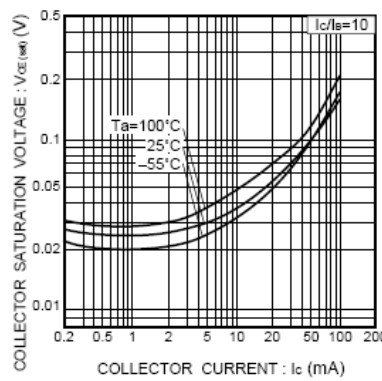


Fig.8 Collector-emitter saturation voltage vs. collector current (II)

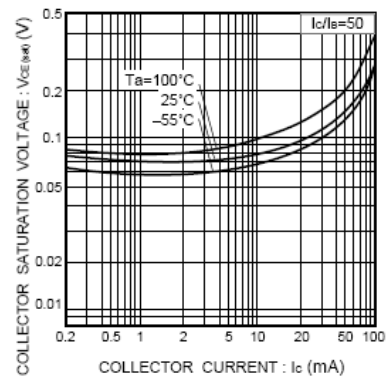


Fig.9 Collector-emitter saturation voltage vs. collector current (III)

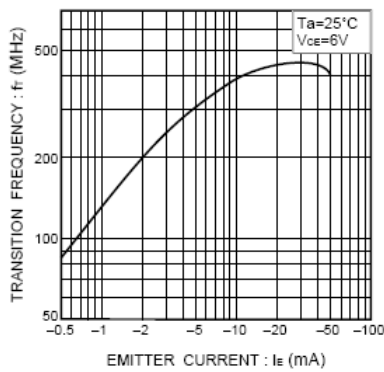


Fig.10 Gain bandwidth product vs. emitter current

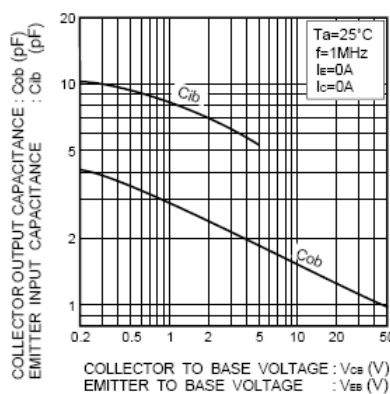


Fig.11 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

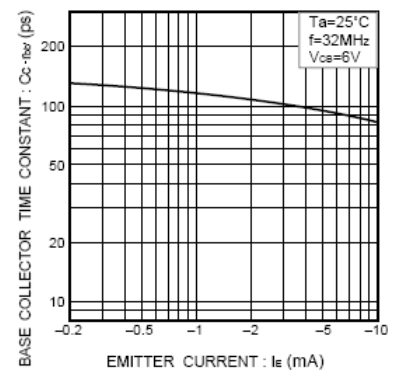
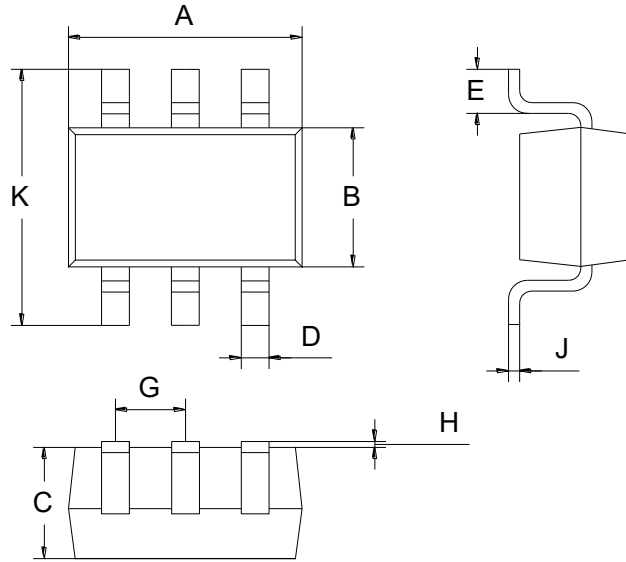


Fig.12 Base-collector time constant vs. emitter current

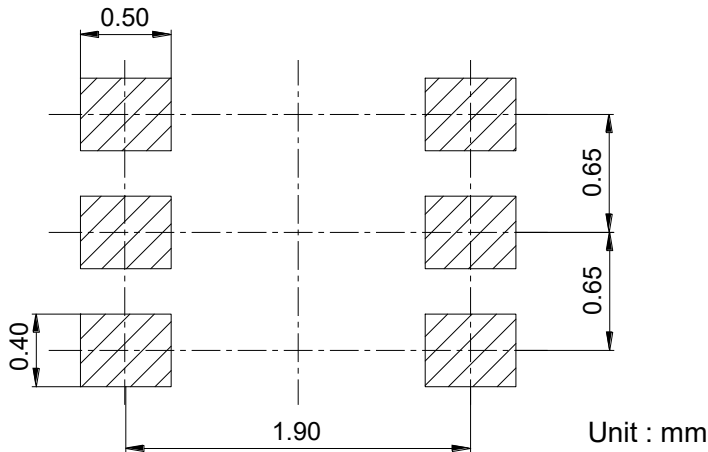
PACKAGE OUTLINE

Plastic surface mounted package



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
UMX1N	SOT-363	3000 pcs / Tape & Reel