

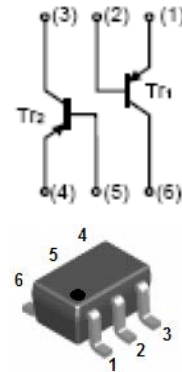


FEATURES

- Two 2SA1037AK 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
UMT1N	T1	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	-6	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

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	Typ	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	$V_{(BR)EBO}$	$I_E=-50\mu A$ $I_C=0$	-6	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=-60V$ $I_E=0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{CB}=-6V$ $I_C=0$	-	-	-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-6V$ $I_C=-1mA$	120	-	560	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50mA$ $I_B=-5mA$	-	-	-0.5	V
Transition frequency	f_T	$V_{CE}=-12V$, $I_E=2mA$, $f=100MHz$	-	140	-	MHz
Output Capacitance	C_{obo}	$V_{CB}=-12V$, $f=1.0MHz$, $I_E=0$	-	4	5	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

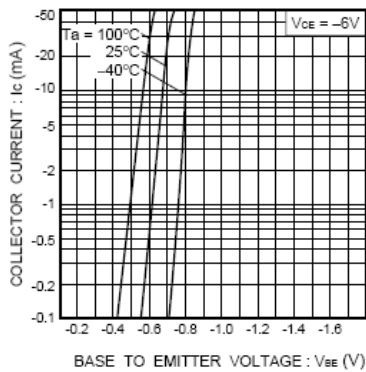


Fig.1 Grounded emitter propagation characteristics

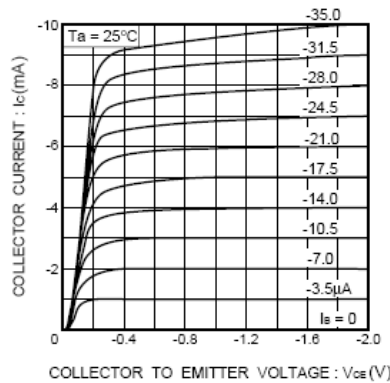


Fig.2 Grounded emitter output characteristics (I)

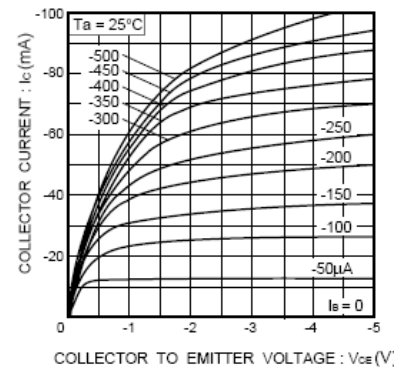


Fig.3 Grounded emitter output characteristics (II)



UMT1N

Dual Bipolar Transistor(PNP+PNP)

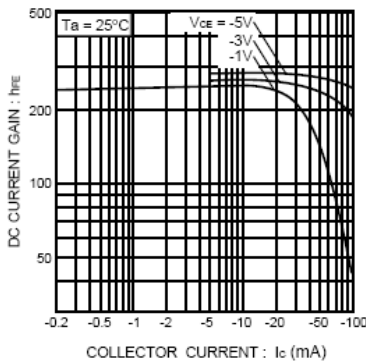


Fig.4 DC current gain vs. collector current (I)

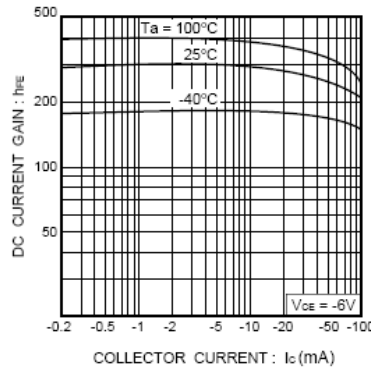


Fig.5 DC current gain vs. collector current (II)

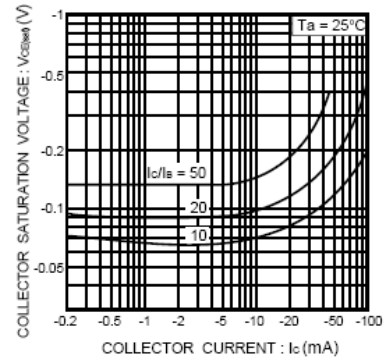


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

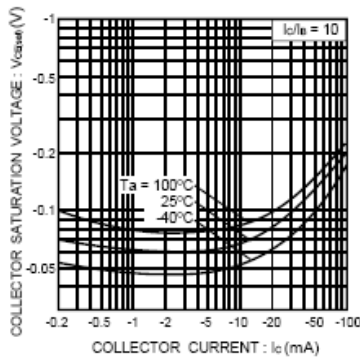


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

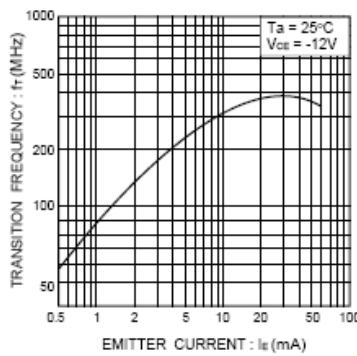


Fig.8 Gain bandwidth product vs. emitter current

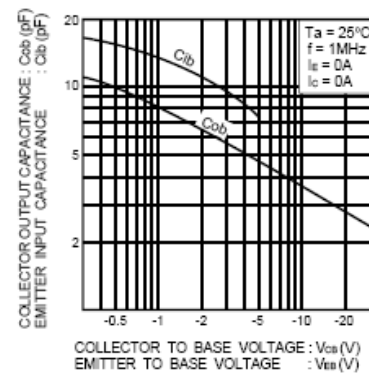
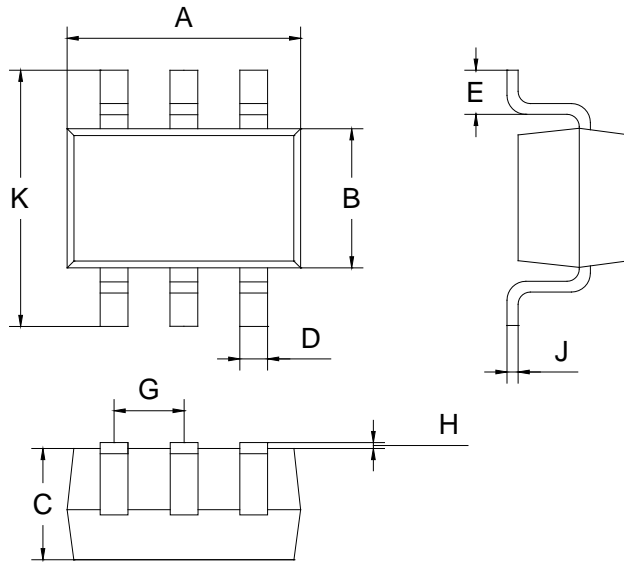


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

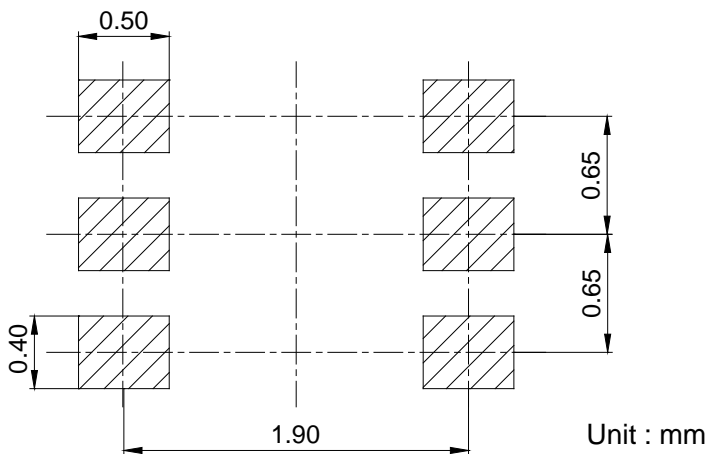
PACKAGE OUTLINE

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
UMT1N	SOT-363	3000/Tape&Reel