



Micro Commercial Components
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UMT1N

Dual Transistors

Features

- Halogen free available upon request by adding suffix "-HF"
- Two 2SA1037AK chips in a package
- Mounting possible with SOT-363 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

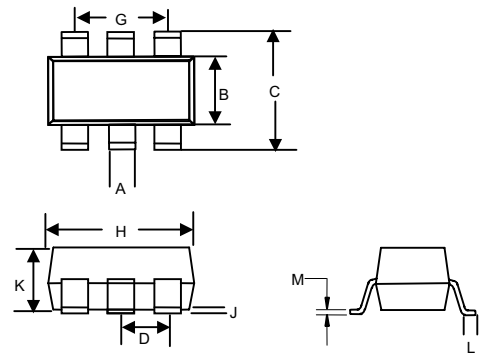
Mechanical Data

- Case: SOT-363, Molded Plastic
- Polarity: See Diagram

Maximum Ratings @ 25°C Unless Otherwise Specified

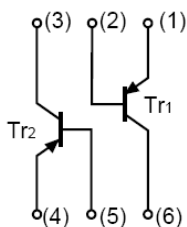
Symbol	Parameter	Value	Units
OFF CHARACTERISTICS			
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	-50	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	-60	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage	-6.0	Vdc
I_c	Collector Current	-150	mAdc
P_d	Power Dissipation	150	mW
T_J, T_{STG}	Operating & Storage Temperature	-55~+150	°C

SOT-363



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026 Nominal		0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	---	0.004	---	0.10	
K	0.035	0.043	0.90	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

MARKING:T1



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ELECTRICAL CHARACTERISTICS (Tamb=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}	$V_{EB} = -6V, I_C = 0$			-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_{ob}	$V_{CB} = -12V, I_E = 0, f = 1MHz$			5	pF

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Typical Characteristics

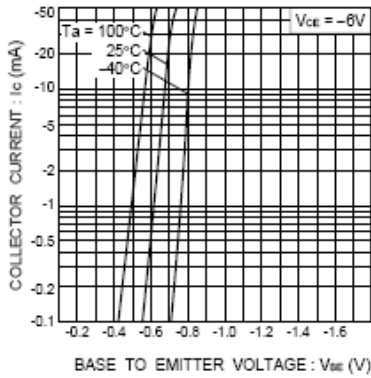


Fig.1 Grounded emitter propagation characteristics

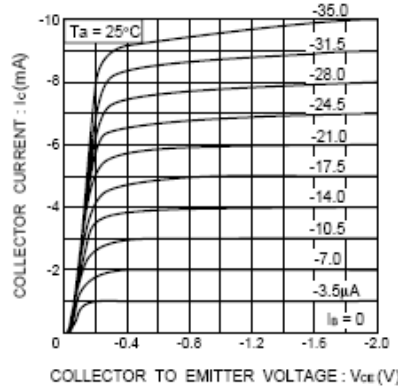


Fig.2 Grounded emitter output characteristics (I)

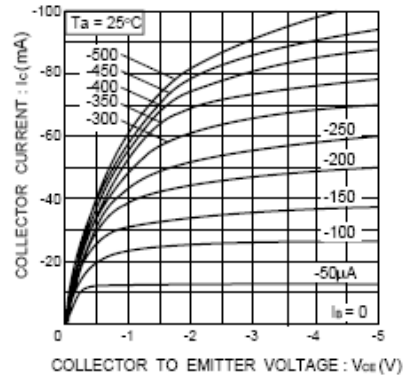


Fig.3 Grounded emitter output characteristics (II)

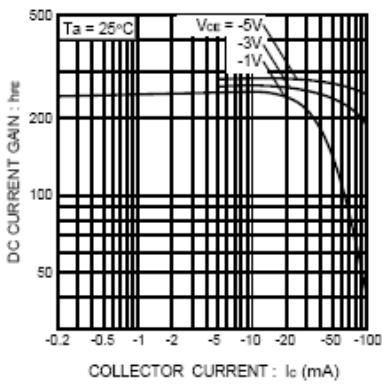


Fig.4 DC current gain vs. collector current (I)

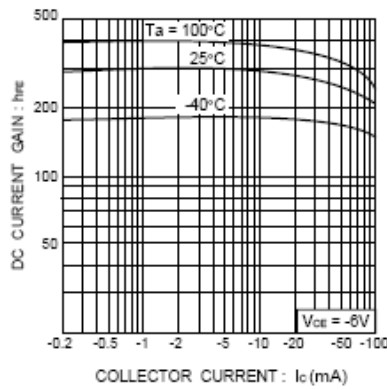


Fig.5 DC current gain vs. collector current (II)

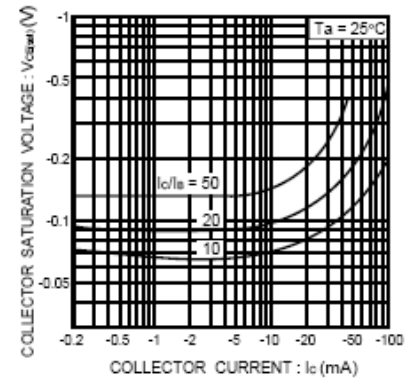


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

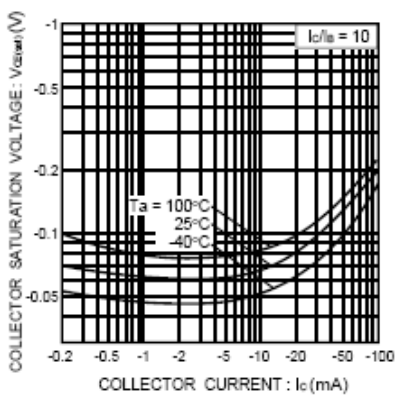


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

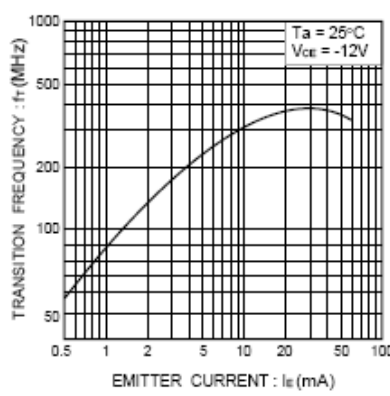


Fig.8 Gain bandwidth product vs. emitter current

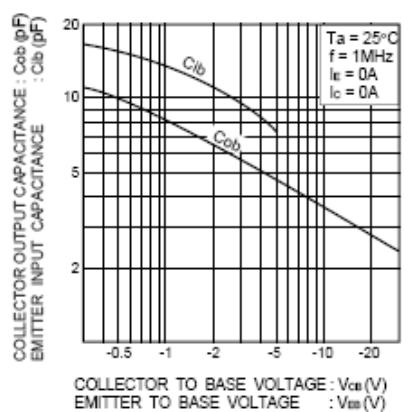


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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