

UMX1N IMX1

Transistor, dual, NPN

Features

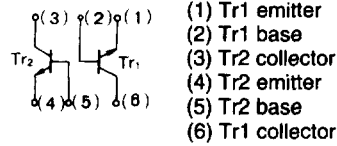
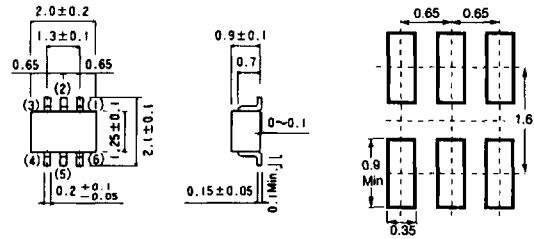
- available in UMT6 (UM6) and SMT6 (IMD, SC-74) packages
- package marking: UMX1N and IMX1; X1
- package contains two independent NPN transistors (2SC2412K)
- same size as UMT3 (UMT, SC-70) and SMT3 (SMT, SC-59), so same placement machine can be used for both
- no mutual interference between the transistors

Applications

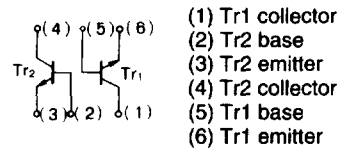
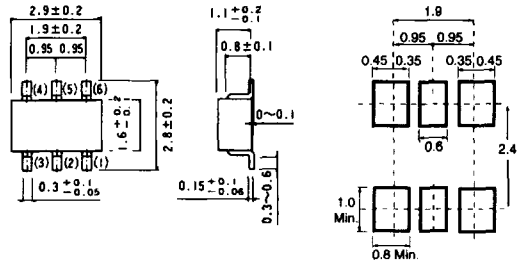
- small signal amplifier

Dimensions (Units : mm)

UMX1N (UMT6)



IMX1 (SMT6)



UMX1N, IMX1 Transistor, dual, 6-pin package

Absolute maximum ratings ($T_a = 25^\circ\text{C}$, common for Tr_1 and Tr_2)

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V_{CBO}	50	V	
Collector-to-emitter voltage	V_{CEO}	40	V	
Emitter-to-base voltage	V_{EBO}	5	V	
Collector current	I_C	100	mA	
Collector dissipation	UMX1N	150 (total)	mW	Do not exceed 120 mW per element
	1MX1	300 (total)		Do not exceed 200 mW per element
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$	

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$, common for Tr_1 and Tr_2)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV_{CBO}	50			V	$I_C = 50 \mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	40			V	$I_C = 1 \text{ mA}$
Emitter-to-base breakdown voltage	BV_{EBO}	5			V	$I_E = 50 \mu\text{A}$
Collector cutoff current	I_{CBO}			0.5	μA	$V_{CB} = 30 \text{ V}$
Emitter cutoff current	I_{EBO}			0.5	μA	$V_{EB} = 4 \text{ V}$
DC current gain	h_{FE}	120				$V_{CE} = 6 \text{ V}$, $I_C = 1 \text{ mA}$
Collector-to-emitter saturation voltage	$V_{CE(sat)}$			0.4	V	$I_C/I_B = 50 \text{ mA}/5 \text{ mA}$

Electrical characteristic curves

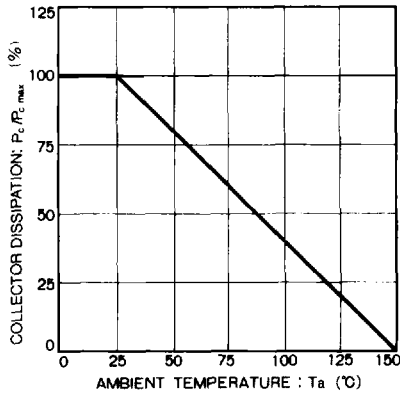


Figure 1

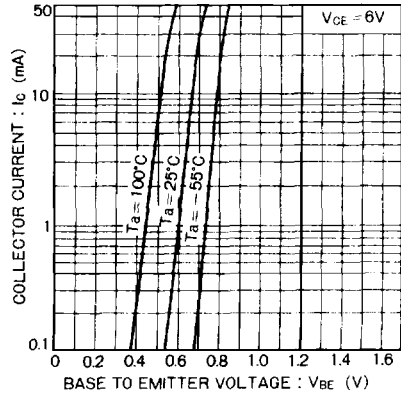


Figure 2

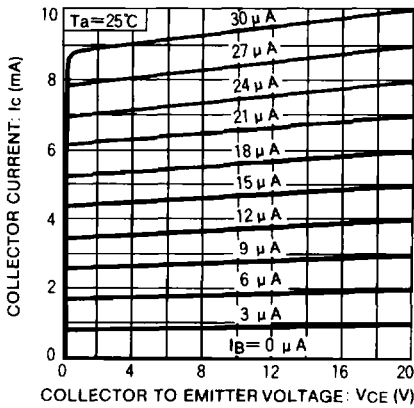


Figure 3

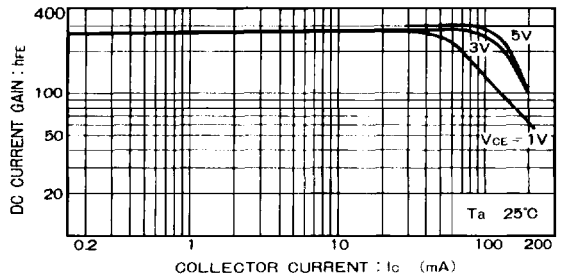


Figure 4

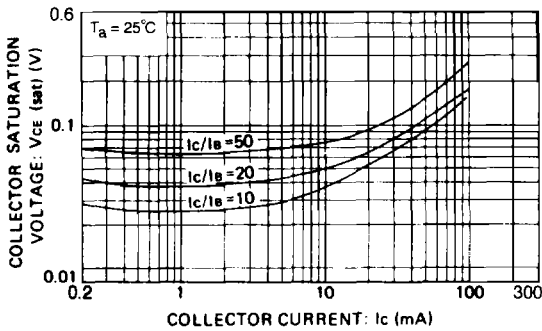


Figure 5

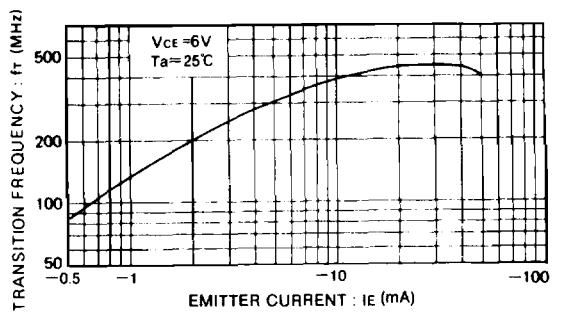


Figure 6

UMX1N, IMX1 Transistor, dual, 6-pin package

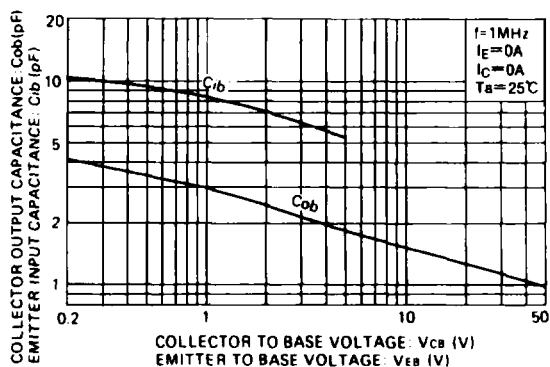


Figure 7

Ordering information

Package	Tape			
	TR	TN	T108	T110
Code				
Basic order quantity	3000	3000	3000	3000
UMX1N	★	★		
IMX1			★	★
★ = Standard, ☆ = Semi-standard, * = Special order				

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