

# UMX2N IMX2

## Transistor, dual, NPN

### Features

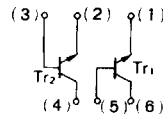
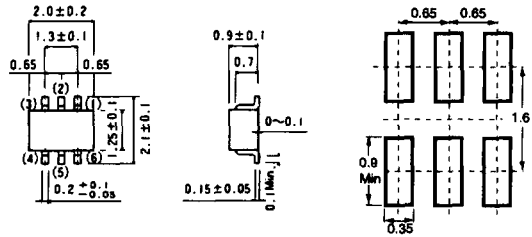
- available in UMT6 (UM6) and SMT6 (IMD, SC-74) packages
- package marking: UMX2N and IMX2; X2
- package contains two independent NPN transistors (2SC2412K)
- same size as UMT3 (UMT, SC-70) and SMT3 (SMT, SC-59), so same placement machine can be used for both
- no mutual interference between the transistors

### Applications

- small signal amplifier

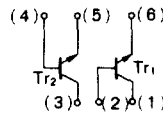
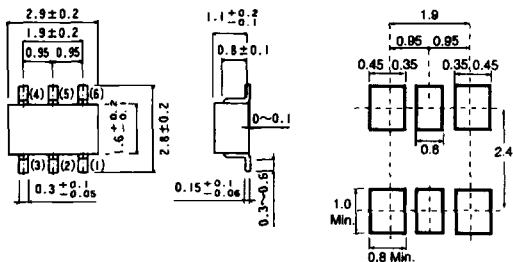
### Dimensions (Units : mm)

#### UMX2N (UMT6)



- (1) Tr1 emitter
- (2) Tr2 emitter
- (3) Tr2 base
- (4) Tr2 collector
- (5) Tr1 base
- (6) Tr1 collector

#### IMX2 (SMT6)



- (1) Tr1 collector
- (2) Tr1 base
- (3) Tr2 collector
- (4) Tr2 base
- (5) Tr2 emitter
- (6) Tr1 emitter

**UMX2N, IMX2** Transistor, dual, 6-pin package

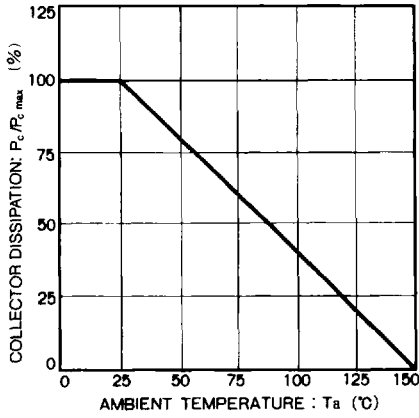
**Absolute maximum ratings ( $T_a = 25^\circ\text{C}$ , common for  $\text{Tr}_1$  and  $\text{Tr}_2$ )**

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	$V_{\text{CBO}}$	50	V	
Collector-to-emitter voltage	$V_{\text{CEO}}$	40	V	
Emitter-to-base voltage	$V_{\text{EBO}}$	5	V	
Collector current	$I_{\text{C}}$	100	mA	
Collector dissipation	UMX2N	150	mW	Do not exceed 120 mW per element
	IMX2	300		Do not exceed 200 mW per element
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$	
Storage temperature	$T_{\text{stg}}$	-55 ~ +150	$^\circ\text{C}$	

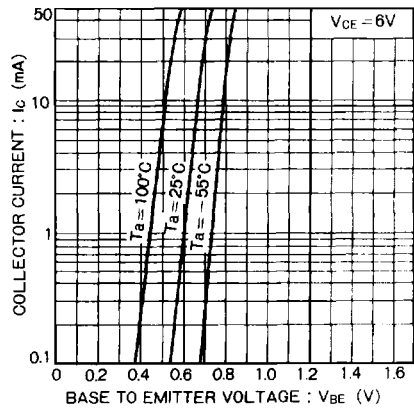
**Electrical characteristics (unless otherwise noted,  $T_a = 25^\circ\text{C}$ , common for  $\text{Tr}_1$  and  $\text{Tr}_2$ )**

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

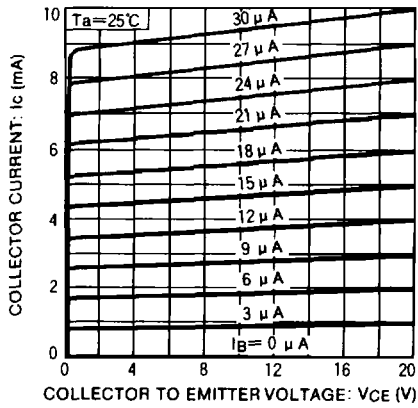
**Electrical characteristic curves**



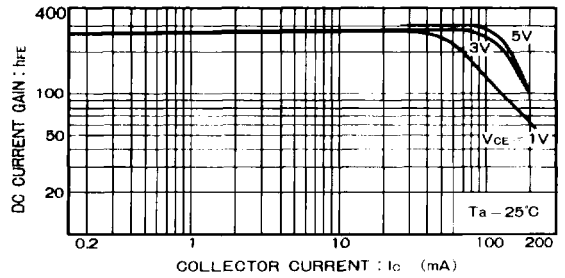
**Figure 1**



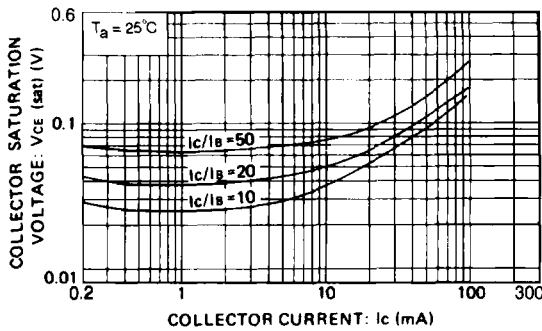
**Figure 2**



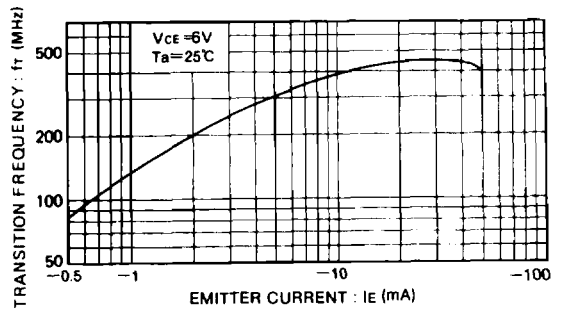
**Figure 3**



**Figure 4**

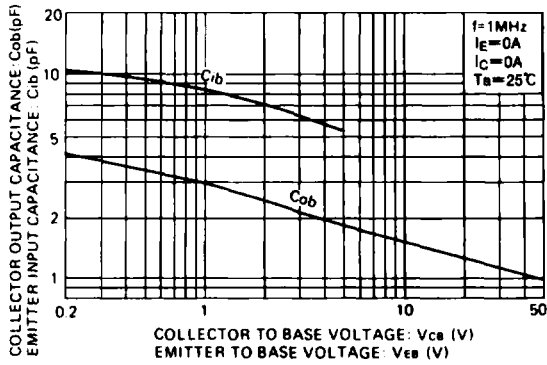


**Figure 5**



**Figure 6**

## UMX2N, IMX2 Transistor, dual, 6-pin package



**Figure 7**

### Ordering information

Package	Tape			
	TR	TN	T108	T110
Code				
Basic order quantity	3000	3000	3000	3000
UMX2N	★	★		
IMX2			★	★
★ = Standard, ☆ = Semi-standard, * = Special order				