

UMX11N

Transistor, dual, NPN

Features

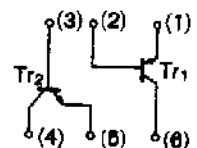
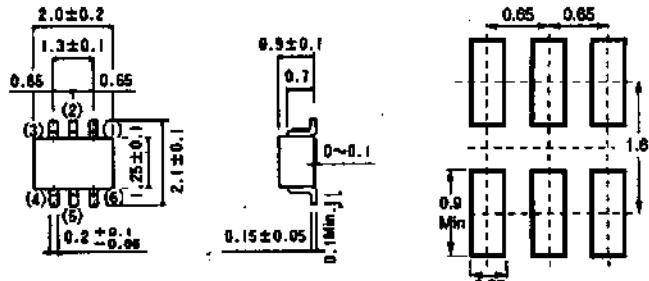
- available in UMT6 (UMT6) package
- package marking: X11
- package contains two independent NPN transistors (2SC2059K)
- same size as UMT3 (UMT, C-70) so same placement machine can be used for both
- no mutual interference between the transistors

Applications

- radio frequency amplifier

Dimensions (Units : mm)

UMX11N (UMT6)



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

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}	25	V	
Collector-to-emitter voltage	V_{CEO}	20	V	
Emitter-to-base voltage	V_{EBO}	4	V	
Collector current	I_C	20	mA	
Collector dissipation	P_C	150	mW	Do not exceed 120 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}	25			V	$I_C = 10 \mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	20			V	$I_C = 1 \text{ mA}$
Emitter-to-base breakdown voltage	BV_{EBO}	4			V	$I_E = 10 \mu\text{A}$
Collector cutoff current	I_{CBO}			0.5	μA	$V_{CB} = 20 \text{ V}$
Emitter cutoff current	I_{EBO}			0.5	μA	$V_{EB} = 3 \text{ V}$
DC current gain	h_{FE}	39		180		$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$
Collector-to-emitter saturation voltage	$V_{CE(\text{sat})}$		0.1		V	$I_C/I_B = 10 \text{ mA}/1 \text{ mA}$

UMX11N Transistor, dual, 6-pin package

Electrical characteristic curves

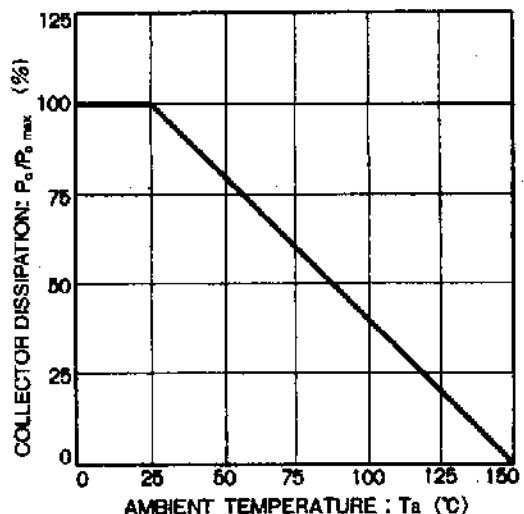


Figure 1

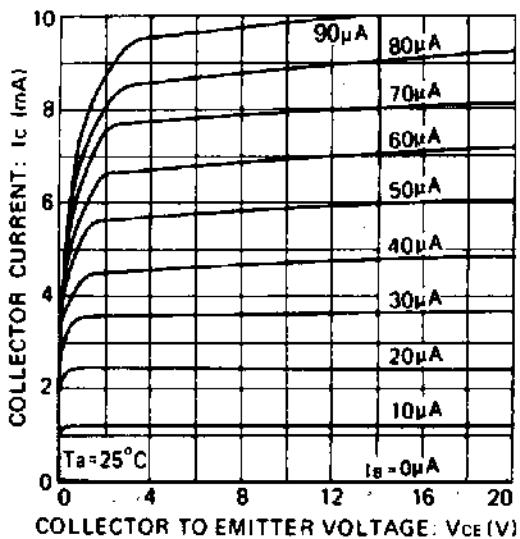


Figure 2

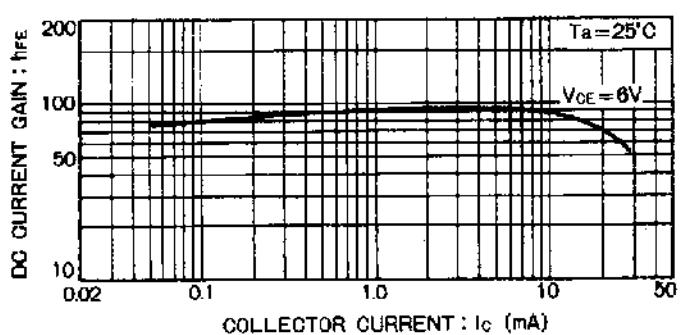


Figure 3

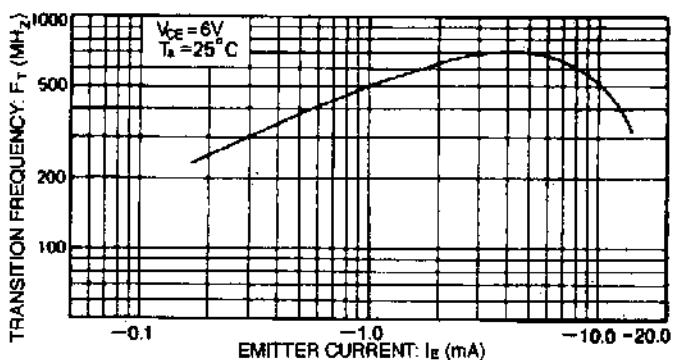


Figure 4

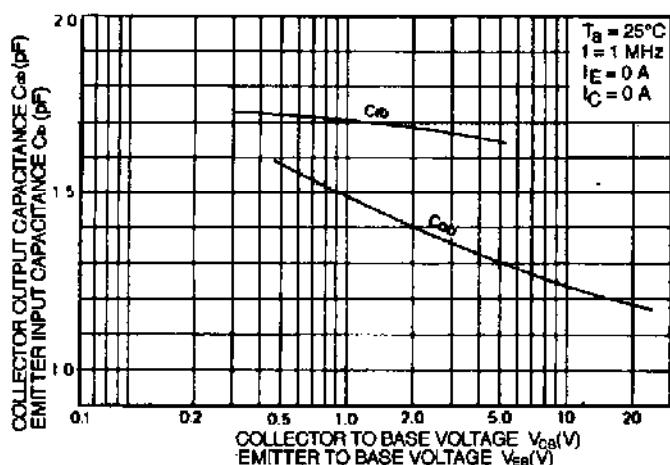


Figure 5

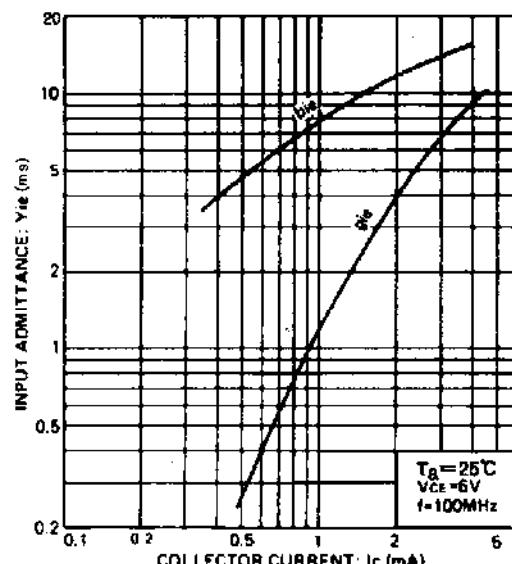


Figure 6

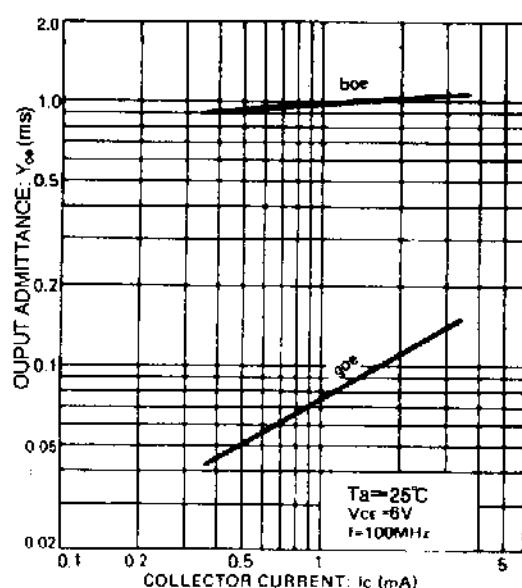


Figure 7

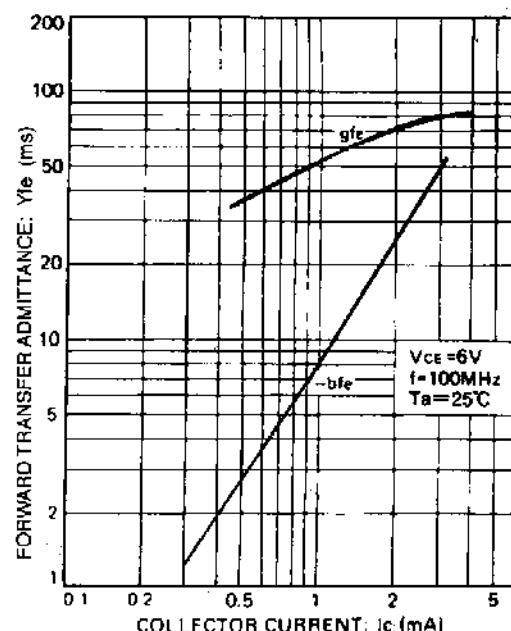


Figure 8

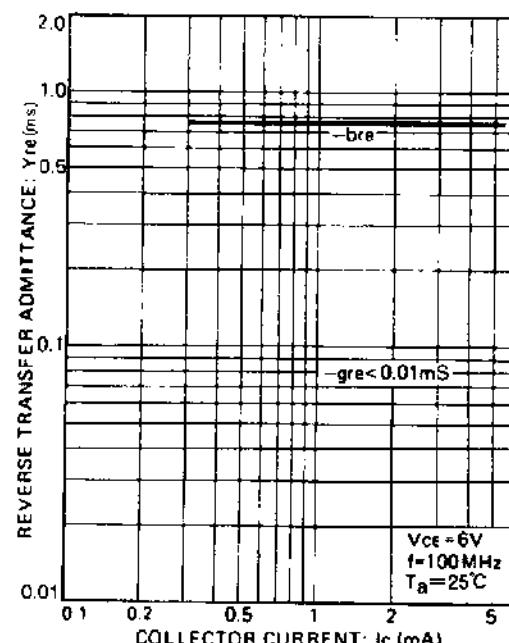


Figure 9

Ordering information

Package	Tape
Code	TR
Basic order quantity	3000
UMX11N	★
★ = Standard, ★ = Semi-standard, * = Special order	