

General purpose transistors (dual transistors)

EMX26

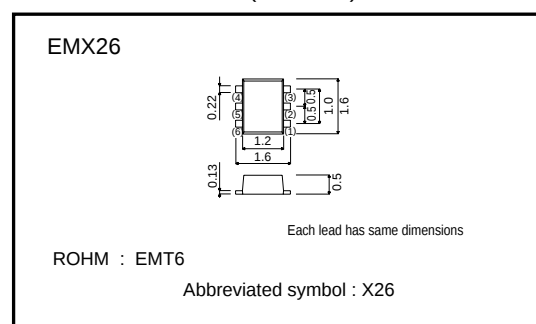
●Features

- 1) Two 2SD2654 chips in a EMT package.
- 2) Mounting possible with EMT3 automatic mounting machines.
- 3) Transistor elements are independent, eliminating interference.
- 4) Mounting cost and area can be cut in half.

●Structure

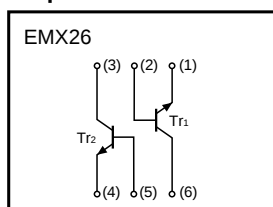
Epitaxial planar type
NPN silicon transistor

●External dimensions (Unit : mm)



The following characteristics apply to both Tr₁ and Tr₂.

●Equivalent circuit



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	12	V
Collector current	I_C	0.15	A (DC)
		0.2	A (Pulse) *1
Power dissipation	P_d	150 (TOTAL)	mW *2
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

*1 Single pulse $P_w=100ms$.

*2 120mW per element must not be exceeded.

Transistors

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	60	—	—	V	$I_C=10\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	BV_{EBO}	12	—	—	V	$I_E=10\mu A$
Collector cutoff current	I_{CBO}	—	—	0.3	μA	$V_{CB}=50V$
Emitter cutoff current	I_{EBO}	—	—	0.3	μA	$V_{EB}=12V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C/I_E=50mA/5mA$ *
DC current transfer ratio	h_{FE}	820	—	2700	—	$V_{CE}/I_C=5V/1mA$ *
Transition frequency	f_T	—	250	—	MHz	$V_{CE}=5V, I_E=-10mA, f=100MHz$ *
Output capacitance	C_{ob}	—	3.5	*	pF	$V_{CB}=5V, I_E=0A, f=1MHz$

* Measured using pulse current.

●Packaging specifications

Type	Package	Taping
	Code	T2R
	Basic ordering unit (pieces)	8000
EMX26		○

●Electrical characteristic curves

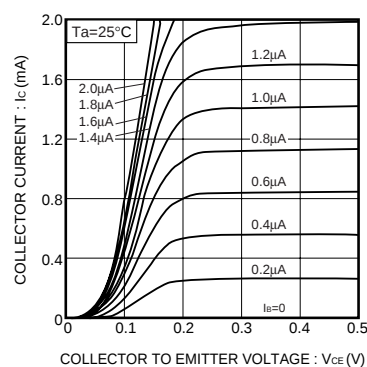


Fig.1 Grounded emitter output characteristics (I)

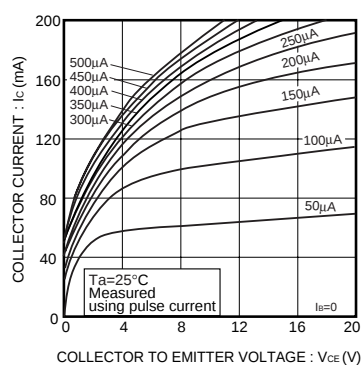


Fig.2 Grounded emitter output characteristics (II)

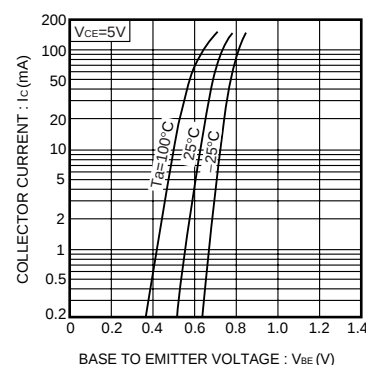


Fig.3 Grounded emitter propagation characteristics

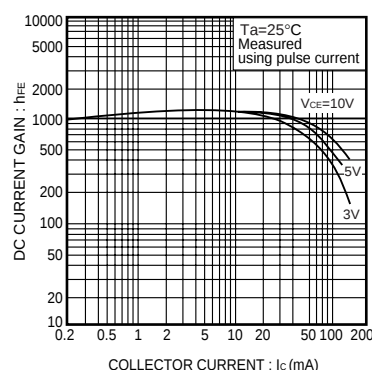


Fig.4 DC current gain vs. collector current (I)

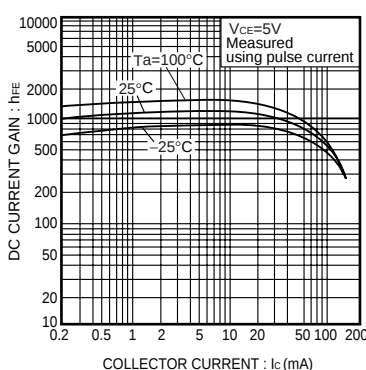


Fig.5 DC current gain vs. collector current (II)

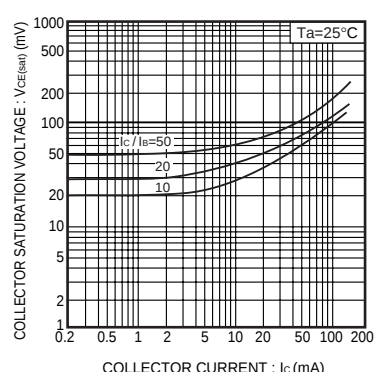


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

Transistors

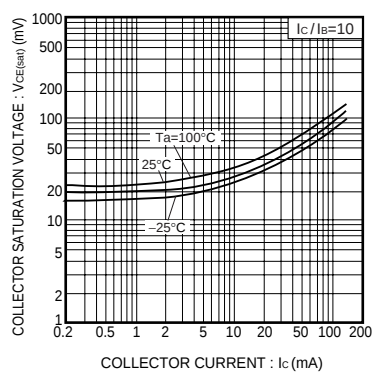


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

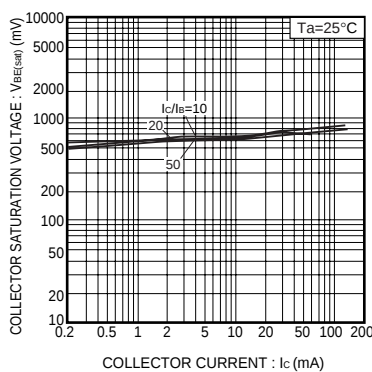


Fig.8 Base-emitter saturation voltage vs. collector current (I)

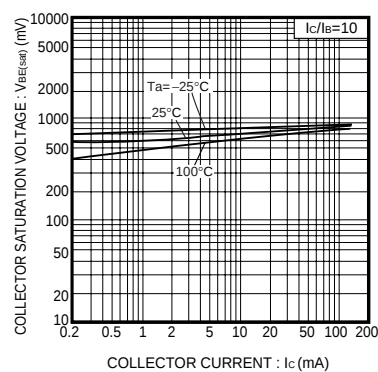


Fig.9 Base-emitter saturation voltage vs. collector current (II)

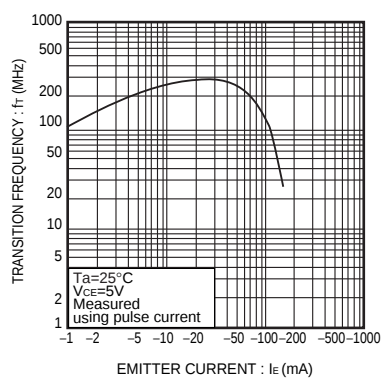


Fig.10 Gain bandwidth product vs. emitter current

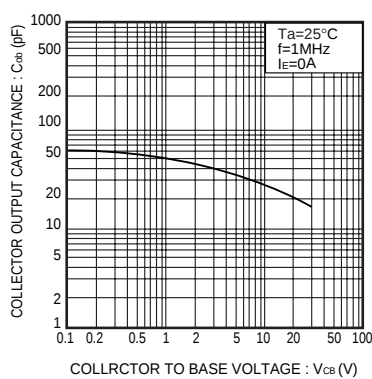


Fig.11 Collector output capacitance vs. collector-base voltage

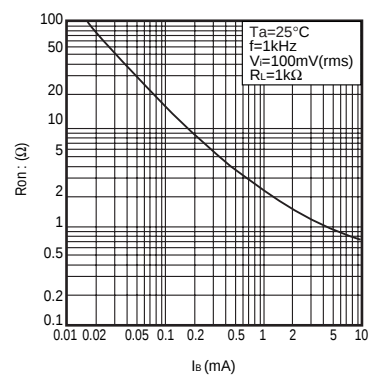


Fig.12 Output on resistance vs. base current

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