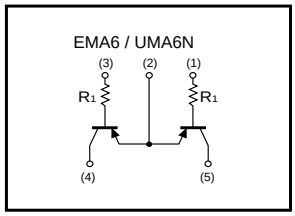
Emitter common (dual digital transistors)

EMA6 / UMA6N

●Feature

1) Two DTA144T chips in a EMT or UMT package.

●Equivalent circuit



●Package, marking, and packaging specifications

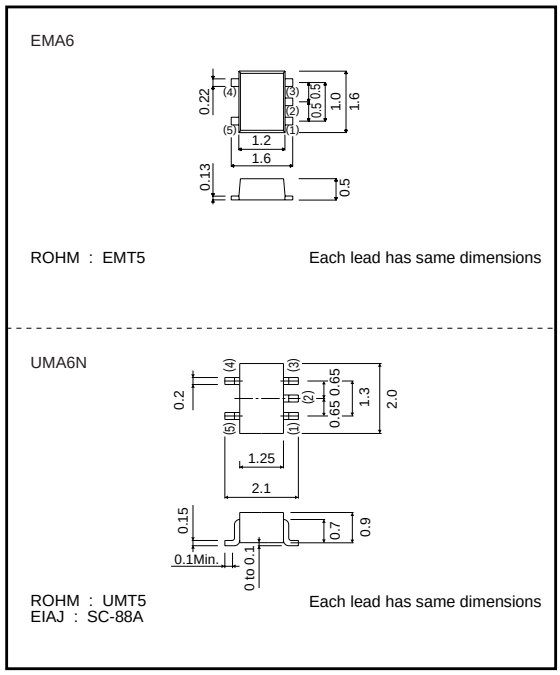
Type	EMA6	UMA6N
Package	EMT5	UMT5
Marking	A6	A6
Code	T2R	TR
Basic ordering unit (pieces)	8000	3000

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	–50	V
Collector-emitter voltage	V_{CEO}	–50	V
Emitter-base voltage	V_{EBO}	–5	V
Collector current	I_C	–100	mA
Collector power dissipation	Pc	150(TOTAL)	mW ∗1
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

∗1 120mW per element must not be exceeded.

●External dimensions (Unit : mm)



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	–50	–	–	V	I_C= –50μA
Collector-emitter breakdown voltage	BV_{CEO}	–50	–	–	V	I_C= –1mA
Emitter-base breakdown voltage	BV_{EBO}	–5	–	–	V	I_E= –50μA
Collector cutoff current	I_{CBO}	–	–	–0.5	μA	V_{CB}= –50V
Emitter cutoff current	I_{EBO}	–	–	–0.5	μA	V_{EB}= –4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	–0.3	V	I_C/I_B= –5mA/ –0.5mA
DC current transfer ratio	h_{FE}	100	250	600	–	V_{CE}/I_C= –5V/ –1mA
Transition frequency	f_T	–	250	–	MHz	V_{EB}= –10V, I_E=5mA, f=100MHz ∗
Input resistance	R_1	32.9	47	61.1	kΩ	–

∗Transition frequency of the device.

●Electrical characteristics curves

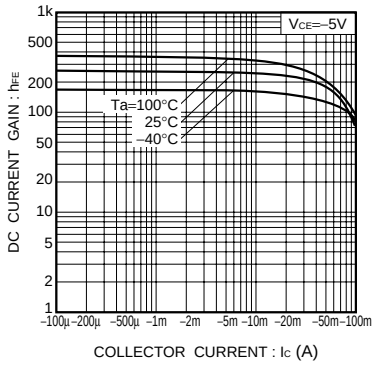


Fig.1 DC current gain vs.collector current

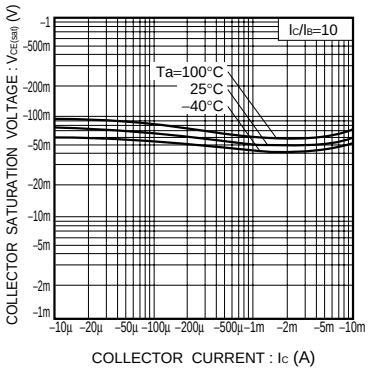


Fig.2 Collector-emitter saturation voltage vs.collector current

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