

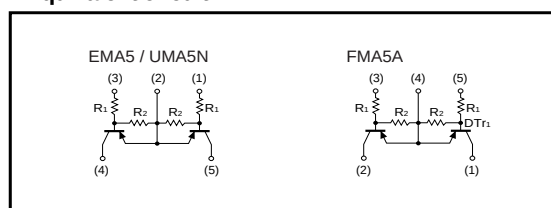
Emitter common (dual digital transistors)

EMA5 / UMA5N / FMA5A

●Features

- 1) Two DTA123Js in a EMT or UMT or SMT package.

●Equivalent circuit



●Packaging, marking, and packaging specifications

Type	EMA5	UMA5N	FMA5A
Package	EMT5	UMT5	SMT5
Marking	A5	A5	A5
Code	T2R	TR	T148
Basic ordering unit (pieces)	8000	3000	3000

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	-50	V
Input voltage	V_{IN}	-12	V
Output current	I_O	-100	mA
Power dissipation	EMA5 / UMA5N FMA5A	150 (TOTAL) 300 (TOTAL)	mW *
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

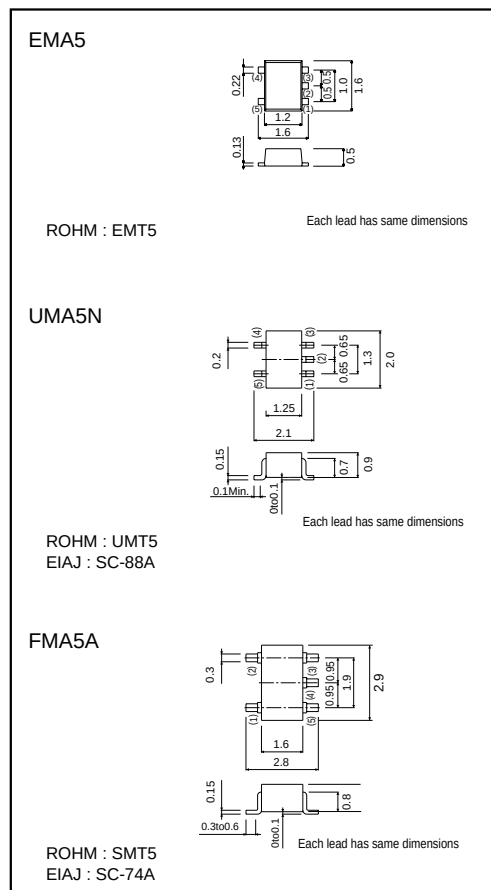
* Do not exceed 120m per element for the UMA5N.
Do not exceed 200mW per element for the FMA5A.

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V_I (off)	-	-	-0.5	V	$V_{CC} = -5V$, $I_O = -100\mu A$
	V_I (on)	-1.1	-	-	V	$V_O = -0.3V$, $I_O = -5mA$
Output voltage	V_O (on)	-	-0.1	-0.3	V	$I_O/I_I = -5mA/-0.25mA$
Input current	I_I	-	-	-3.6	mA	$V_I = -5V$
Output current	I_O (off)	-	-	-0.5	μA	$V_{CC} = -50V$, $V_I = 0V$
DC current gain	G_I	80	-	-	-	$V_O = -5V$, $I_O = -10mA$
Input resistance	R_I	1.54	2.2	2.86	k Ω	-
Transition frequency	f_T	-	250	-	MHz	$V_{CE} = -10V$, $I_E = 5mA$, $f = 100MHz$
Resistance ratio	R_2 / R_1	17	21	26	-	-

* Transition frequency of the device.

●External dimensions (Unit : mm)



Transistors

●Electrical characteristics curves

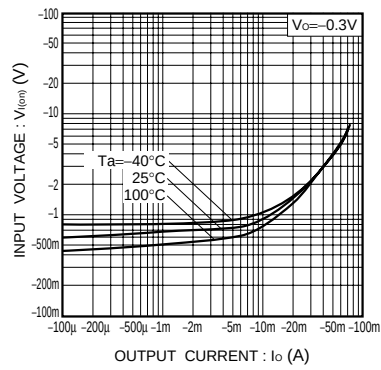


Fig.1 Input voltage vs. output current (ON characteristics)

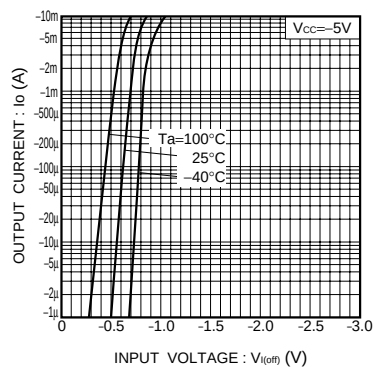


Fig.2 Output current vs. input voltage (OFF characteristics)

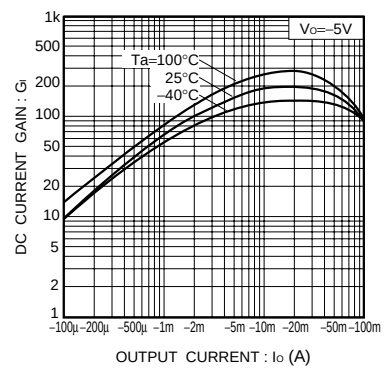


Fig.3 DC current gain vs. output current

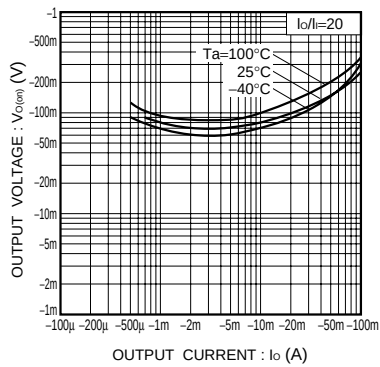


Fig.4 Output voltage vs. output current

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