

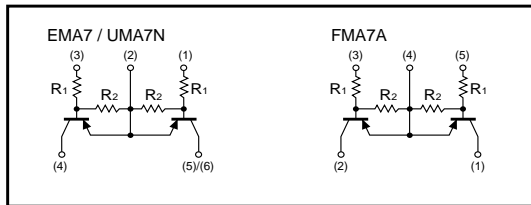
# Emitter common (dual digital transistors)

## EMA7 / UMA7N / FMA7A

●Features

- 1) Two DTA143X chips in a EMT or UMT or SMT package.

●Equivalent circuit



●Package, marking, and packaging specifications

Type	EMA7	UMA7N	FMA7A
Package	EMT5	UMT5	SMT5
Marking	A7	A7	A7
Code	T2R	TR	T148
Basic ordering unit (pieces)	8000	3000	3000

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V <sub>CC</sub>	-50	V
Input voltage	V <sub>IN</sub>	-20	V
		7	
Output current	I <sub>O</sub>	-100	mA
Power dissipation	P <sub>d</sub>	150(TOTAL)	mW *1
		300(TOTAL)	
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55~+150	°C

\*1 120mW per element must not be exceeded.  
\*2 200mW per element must not be exceeded.

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V <sub>I (off)</sub>	-	-	-0.3	V	V <sub>CC</sub> =-5V, I <sub>O</sub> =-100μA
	V <sub>I (on)</sub>	-2.5	-	-		V <sub>O</sub> =-0.3V, I <sub>O</sub> =-20mA
Output voltage	V <sub>O (on)</sub>	-	-0.1	-0.3	V	I <sub>O</sub> /I <sub>I</sub> =-10mA/-0.5mA
Input current	I <sub>I</sub>	-	-	-1.8	mA	V <sub>I</sub> =-5V
Output current	I <sub>O (off)</sub>	-	-	-0.5	μA	V <sub>CC</sub> =-50V, V <sub>I</sub> =0V
DC current gain	G <sub>i</sub>	30	-	-	-	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA
Transition frequency	f <sub>T</sub>	-	250	-	MHz	V <sub>CE</sub> =-10V, I <sub>E</sub> =5mA, f=100MHz *
Input resistance	R <sub>I</sub>	3.29	4.7	6.11	kΩ	-
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>	1.7	2.1	2.6	-	-

\*Transition frequency of the device.

●External dimensions (Units : mm)

