

EMG5 / UMG5N / FMG5A

Transistors

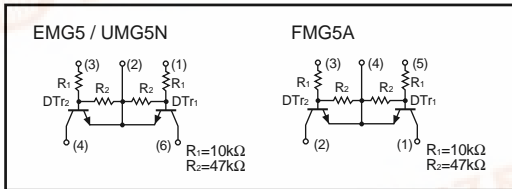
Emitter common (dual digital transistors)

EMG5 / UMG5N / FMG5A

●Features

1) Two DTC114Y chips in a EMT or UMT or SMT package.

●Equivalent circuit



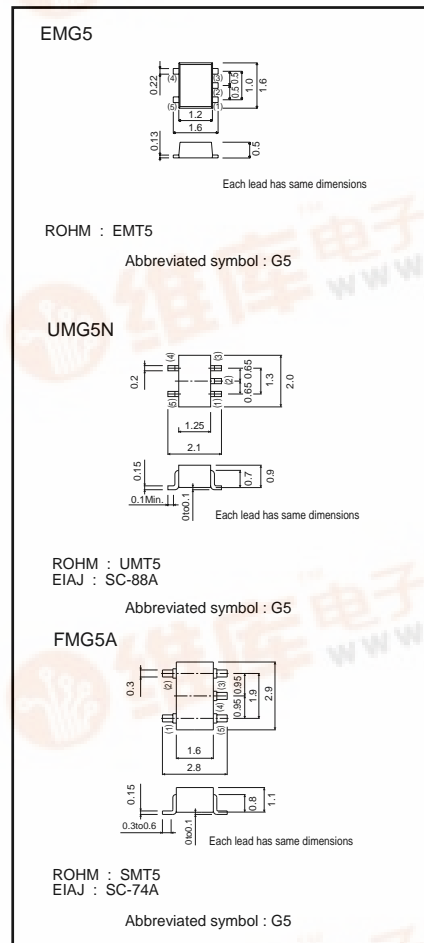
●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	40	V
		-6	
Output current	I _o	100	mA
	I _c (Max.)	100	
Power dissipation	EMG5, UMG5N	150 (TOTAL)	mW *1
	FMG5A	300 (TOTAL)	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

*1 120mW per element must not be exceeded.

*2 200mW per element must not be exceeded.

●External dimensions (Units : mm)



Transistors

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	–	–	0.3	V	V _{CC} =5V, I _O =100μA
	V _{I (on)}	1.4	–	–		V _O =0.3V, I _O =1mA
Output voltage	V _{O (on)}	–	0.1	0.3	V	I _O =5mA, I _I =0.25mA
Input current	I _I	–	–	0.88	mA	V _I =5V
Output current	I _{O (off)}	–	–	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	68	–	–	–	V _O =5V, I _O =5mA
Transition frequency	f _T	–	250	–	MHz	V _{CE} =–10V, I _E =5mA, f=100MHz *
Input resistance	R _I	7	10	13	kΩ	–
Resistance ratio	R ₂ /R ₁	3.7	4.7	5.7	–	–

* Transition frequency of the device

●Packaging specifications

Type	Package	Taping		
	Code	T2R	TR	T148
	Basic ordering unit (pieces)	8000	3000	3000
EMG5	○	—	—	—
UMG5N	—	○	—	—
FMG5A	—	—	—	○