

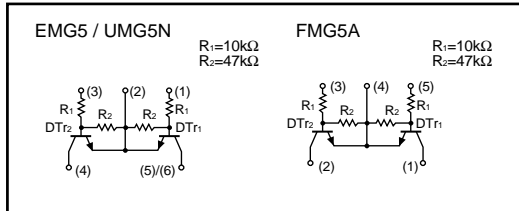
Emitter common (dual digital transistors)

EMG5 / UMG5N / FMG5A

●Features

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

●Equivalent circuit

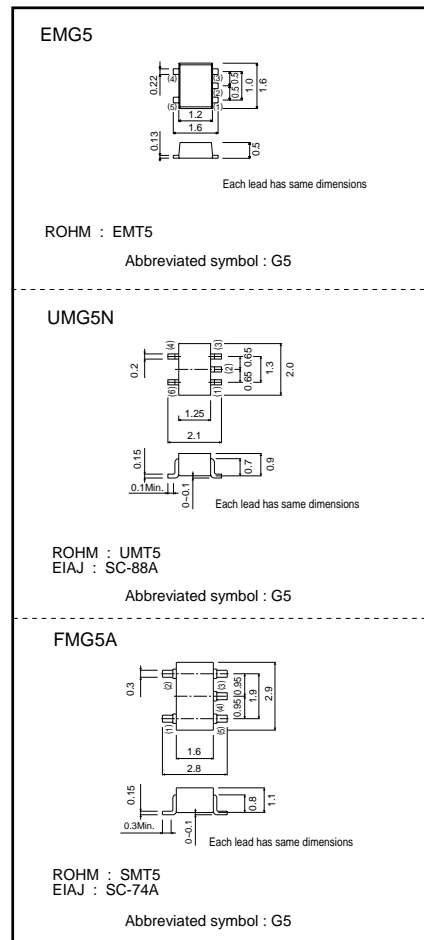


●Absolute maximum ratings (Ta = 25°C)

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)	mW *2
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	$V_{CC}=5V, I_o=100\mu A$
	$V_{I(on)}$	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_1	7	10	13	k Ω	–
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	–	–	–	○