

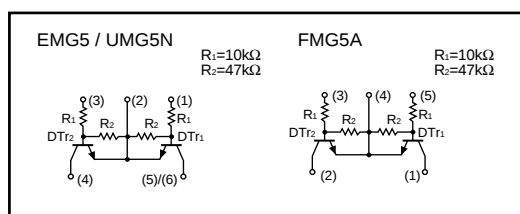
Emitter common (dual digital transistors)

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 -6	V
Output current	I_O	100	mA
	I_C (Max.)	100	
Power dissipation	EMG5, UMG5N FMG5A	150 (TOTAL) 300 (TOTAL)	mW *1 *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)

EMG5

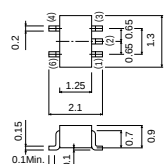


Each lead has same dimensions

ROHM : EMT5

Abbreviated symbol : G5

UMG5N



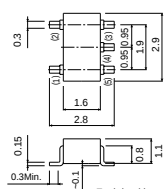
Each lead has same dimensions

ROHM : UMT5

EIAJ : SC-88A

Abbreviated symbol : G5

FMG5A



Each lead has same dimensions

ROHM : SMT5

EIAJ : SC-74A

Abbreviated symbol : G5

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	—	—	—	○