

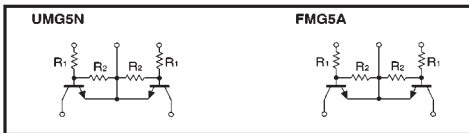
Emitter common (dual digital transistors)

UMG5N / FMG5A

●Features

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

●Circuit diagrams



●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	—	—	—	$I_O=5mA$, $V_O=5V$
Transition frequency	f_T	—	250	—	MHz	$V_{CE}=-10V$, $I_E=5mA$, $f=100MHz$ *
Input resistance	R_I	7	10	13	k Ω	—
Resistance ratio	R_2/R_1	3.7	4.7	5.7	—	—

●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
Power dissipation	UMG5N	150 (TOTAL)	mW
	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.

●Package, marking, and packaging specifications

Part No.	UMG5N	FMG5A
Package	UMT5	SMT5
Marking	G5	G5
Code	TR	T148
Basic ordering unit (pieces)	3000	3000