

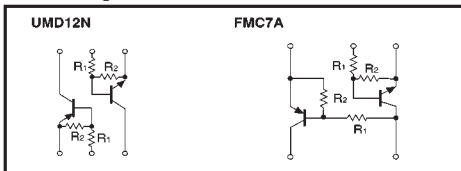
Power management (dual digital transistors)

UMD12N / FMC7A

●Features

1) Both the DTA144E and DTC144E in a UMT or SMT package.

●Circuit diagrams



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	40 -10	V
Output current	I _C	100	mA
	I _O	30	mA
Power dissipation	UMD12N FMC7A	P _d	150 (TOTAL) 300 (TOTAL)
			mW
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. PNP type negative symbols have been omitted.

●Package, marking, and packaging specifications

Part No.	UMD12N	FMC7A
Package	UMT6	SMT5
Marking	D12	C7
Code	TR	T148
Basic ordering unit (pieces)	3000	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	—	—	0.5	V	V _{CC} =5/-5V, I _O =100/-100 μA
	V _{I (on)}	3	—	—	V	V _O =0.3/-0.3V, I _O =2/-2mA
Output voltage	V _{O (on)}	—	—	0.3	V	I _O =10/-10mA, I _I =0.5/-0.5mA
Input current	I _I	—	—	0.18	mA	V _I =5/-5V
Output current	I _{O (off)}	—	—	0.5	μA	V _{CC} =50/-50V, V _I =0V
DC current gain	G _I	68	—	—	—	I _O =5/-5mA, V _O =5/-5V
Transition frequency	f _r	—	250	—	MHz	V _{CE} =10/-10V, I _E =-5/5mA, f=100MHz
Input resistance	R _I	32.9	47	61.1	kΩ	—
Resistance ratio	R ₂ /R ₁	0.8	1	1.2	—	—