Transistors

Power management (dual digital transistors) UMC3N / FMC3A

Features

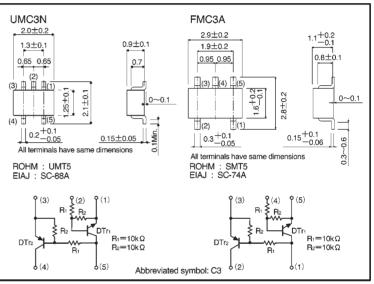
- Both the DTA114E chip and DTC114E chip in a UMT or SMT package.
- 2) Ideal for power switch circuits.
- Mounting cost and area can be cut in half.

Structure

Epitaxial planar type NPN/PNP silicon transistor (Built-in resistor type)

The following characteristics apply to both DTr_1 and DTr_2 , however, the "–" sign on DTr_2 values for the PNP type have been omitted.





•Absolute maximum ratings (Ta = 25° C)

Parameter		Limits	Unit	
Supply voltage		50	V	
Input voltage		40	V	
		-10		
Output current		50	0	
		100	mA	
UMC3N	Dd	150(TOTAL)	- mW *-	
FMC3A		300(TOTAL)	*2	
rature	e Tj 150		°C	
Storage temperature		-55~+150	Ĉ	
	UMC3N FMC3A rature	UMC3N Pd FMC3A Tj		

*1 120mW per element must not be exceeded.

*2 200mW per element must not be exceeded.

•Electrical characteristics (Ta = 25° C)

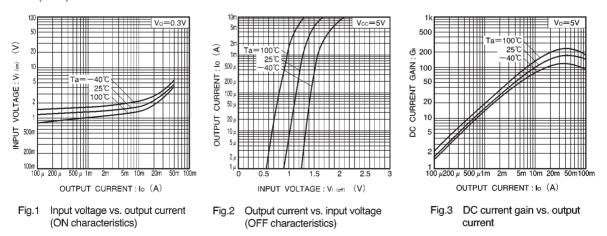
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Input voltage	VI (off)	—	_	0.5	V	Vcc=5V, lo=100 μA	
	$V_{I}\left(on\right)$	3	_	_		Vo=0.3V, lo=10mA	
Output voltage	Vo(on)	_	0.1	0.3	V	l₀=10mA, lı=0.5mA	
Input current	h	_	_	0.88	mA	V1=5V	
Output current	lo (off)		—	0.5	μA	Vcc=50V, Vi=0V	
DC current gain	Gi	30	_	_	_	Vo=5V, Io=5mA	
Transition frequency	fт	_	250	_	MHz	Vce=10mA, le=-5mA, f=100MHz*	
Input resistance	Rı	7	10	13	kΩ	_	
Resistance ratio	R2/R1	0.8	1	1.2	_		

* Transition frequency of the device

Packaging specifications

	Packaging type	Taping	
	Code	TR	T148
Part No.	Basic ordering unit (pieces)	3000	3000
UMC3N		0	—
FMC3A		—	0

Electrical characteristic curves DTr1 (NPN)





Transistors

-3.0

