

EMG6 / UMG6N / FMG6A

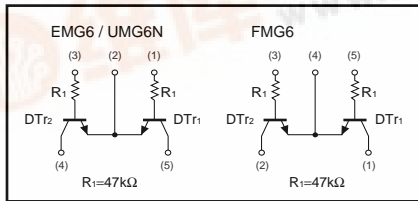
Transistors

General purpose (dual digital transistors)
EMG6 / UMG6N / FMG6A

●Features

1) Two DTC114T chips in a EMT or UMT or SMT package.

●Equivalent circuit



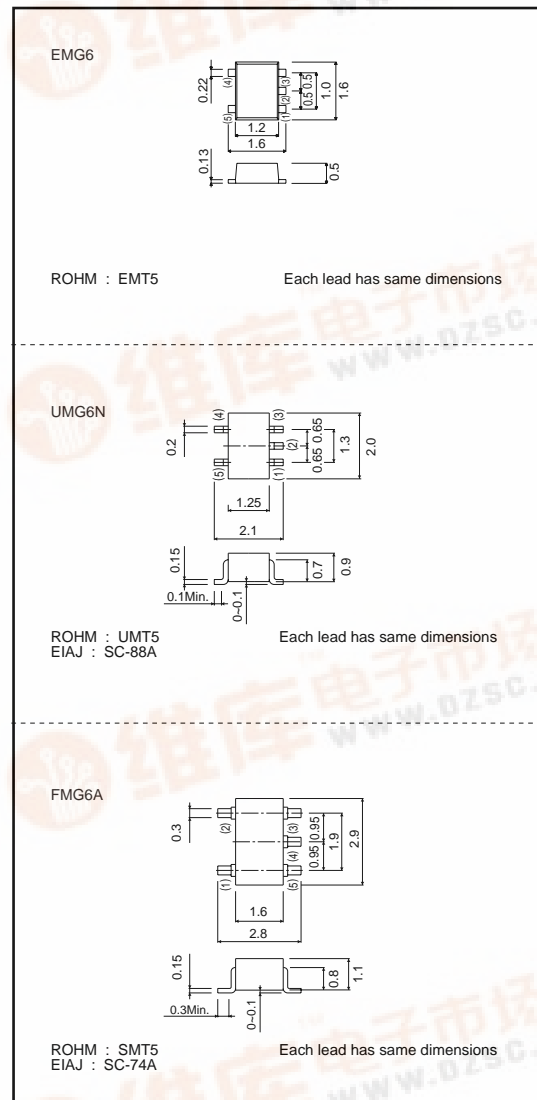
●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CE0}	50	V
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _c	100	mA
Collector power dissipation	P _c	150(TOTAL)	mW
		300(TOTAL)	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

●Package, marking, and packaging specifications

Type	EMG6	UMG6N	FMG6A
Package	EMT5	UMT5	SMT5
Marking	G6	G6	G6
Code	T2R	TR	T148
Basic ordering unit (pieces)	8000	3000	3000

●External dimensions (Unit : mm)



Transistors

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	50	–	–	V	I _c =50μA
Collector-emitter breakdown voltage	BV _{CEO}	50	–	–	V	I _c =1mA
Emitter-base breakdown voltage	BV _{EB0}	5	–	–	V	I _E =50μA
Collector cutoff current	I _{CB0}	–	–	0.5	μA	V _{CB} =50V
Emitter cutoff current	I _{EB0}	–	–	0.5	μA	V _{EB} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	–	–	0.3	V	I _c /I _B =10mA/1mA
DC current transfer ratio	h _{FE}	100	250	600	–	V _{CE} /I _c =5V/1mA
Transition frequency	f _T	–	250	–	MHz	V _{CE} =10V, I _E =–5mA, f=100MHz *
Input resistance	R _i	32.9	47	61.1	kΩ	–

*Transition frequency of the device.

●Electrical characteristics curves

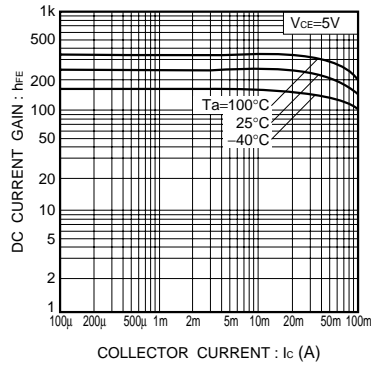


Fig.1 DC current gain vs. collector current

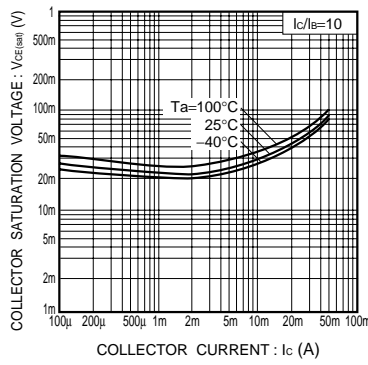


Fig.2 Collector-emitter saturation voltage vs. collector current

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