

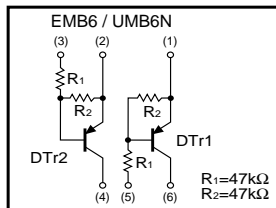
General purpose (dual digital transistors)

EMB6 / UMB6N

●Feature

1) Two DTA144E chips in a EMT or UMT package.

●Equivalent circuit



●Package, marking, and packaging specifications

Type	EMB6	UMB6N
Package	EMT6	UMT6
Marking	B6	B6
Code	T2R	TR
Basic ordering unit (pieces)	8000	3000

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	-50	V
Input voltage	V _{IN}	-40	V
		10	
Output current	I _O	30	mA
Power dissipation	P _d	150(TOTAL)	mW *1
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

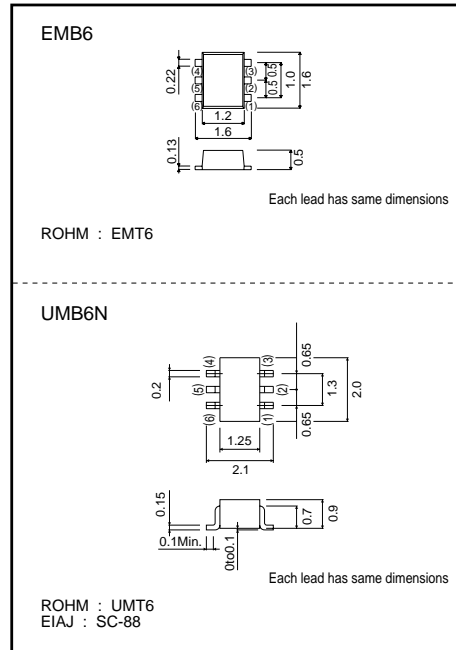
*1 120mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	-	-	-0.5	V	V _{CC} =-5V, I _O =-100μA
	V _{I (on)}	-3.0	-	-		V _O =-0.3V, I _O =-2mA
Output voltage	V _{O (on)}	-	-0.1	-0.3	V	I _O =-10mA, I _I =-0.5mA
Input current	I _I	-	-	-0.18	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
Input resistance	R ₁	32.9	47	61.1	kΩ	-
Resistance ratio	R ₂ /R ₁	0.8	1.0	1.2	-	-
Transition frequency	f _T	-	250	-	MHz	V _{CE} =-10V, I _E =5mA, f=100MHz *

*Transition frequency of the device.

●External dimensions (Unit : mm)



Transistors

●Electrical characteristics curve

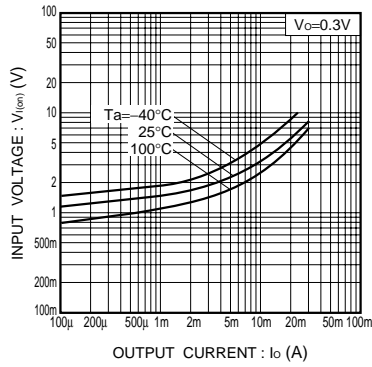


Fig.1 Input voltage vs. output current (ON characteristics)

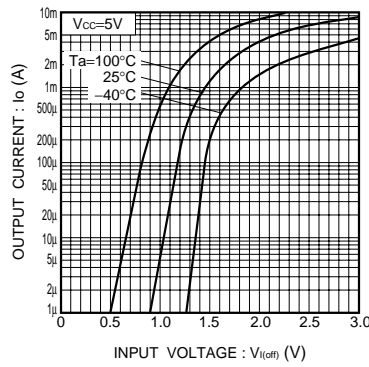


Fig.2 Output current vs. input voltage (OFF characteristics)

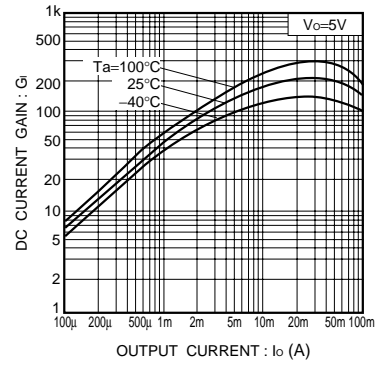


Fig.3 DC current gain vs. output current

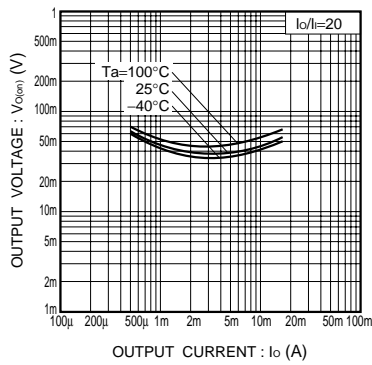


Fig.4 Output voltage vs. output current