

Transistors

● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit	
Supply voltage	V _{CC}	50	V	
Input current	V _{IN}	40	V	
		-10		
Output current	I _O	30	mA	
	I _{C (Max.)}	100		
Power dissipation	EMC2,UMC2N	Pd	150 (TOTAL)	*1
	FMC2A		300 (TOTAL)	*2
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.

● 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	-	-		V _O =0.2V, I _O =5mA
Output voltage	V _{O (on)}	-	0.1	0.3	V	I _O /I _I =10mA/0.5mA
Input current	I _I	-	-	0.36	mA	V _I =5V
Output current	I _{O (off)}	-	-	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	56	-	-	-	V _O =5V, I _O =5mA
Transition frequency	f _T	-	250	-	MHz	V _{CE} =10mA, I _E =-5mA, f=100MHz *
Input resistance	R _I	15.4	22	28.6	kΩ	-
Resistance ratio	R ₂ /R ₁	0.8	1	1.2	-	-

* Transition frequency of the device

● Electrical characteristic curves

DT_{Tr1}

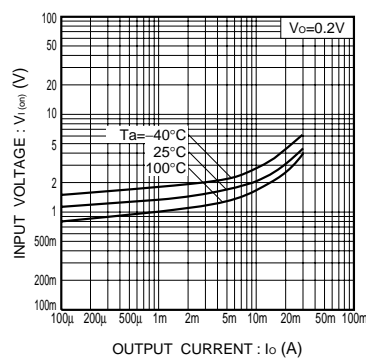


Fig.1 Input voltage vs. output current (ON characteristics)

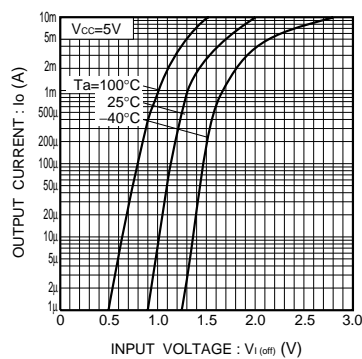


Fig.2 Output current vs. input voltage (OFF characteristics)

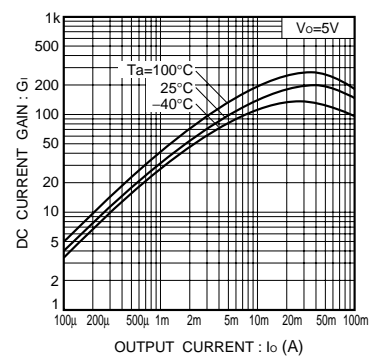


Fig.3 DC current gain vs. output current

Transistors

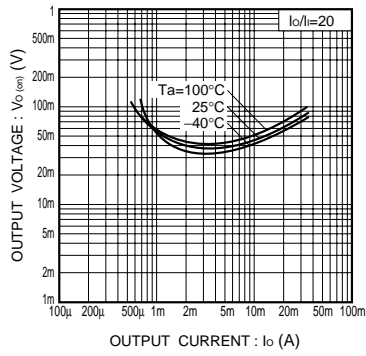


Fig.4 Output voltage vs. output current

DT_{r2}

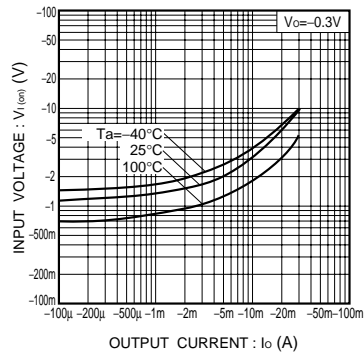


Fig.5 Input voltage vs. output current (ON characteristics)

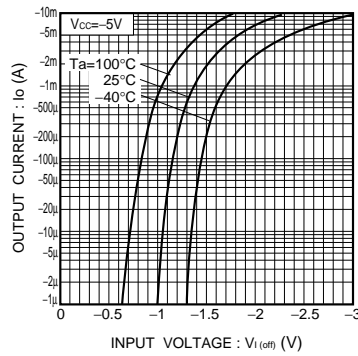


Fig.6 Output current vs. input voltage (OFF characteristics)

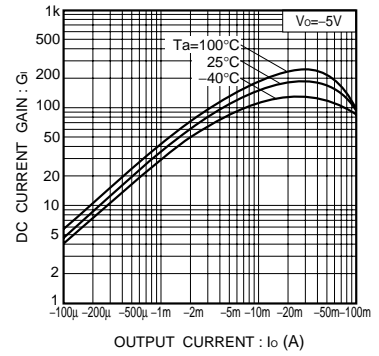


Fig.7 DC current gain vs. output current

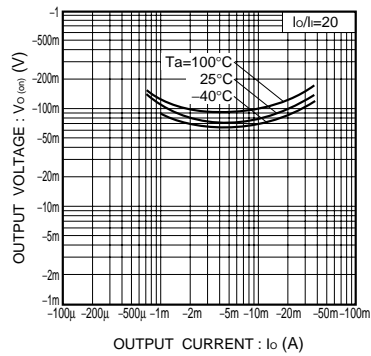


Fig.8 Output voltage vs. output current