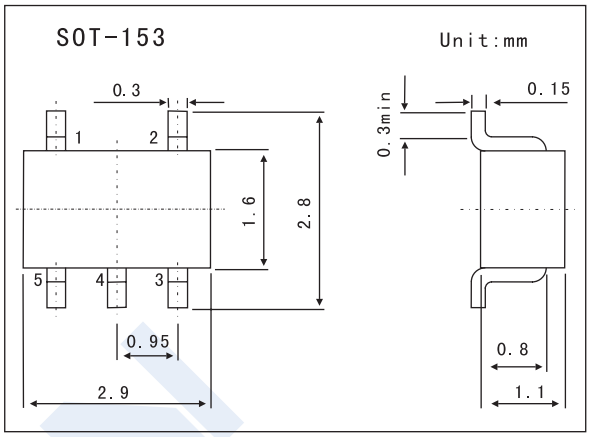
Complex Digital Transistors

FMA1A



Features

- Mounting Cost and Area Can Be Cut In Half.
- Emitter-common Type.
- PNP Epitaxial Planar Silicon Transistor.

Absolute Maximum Ratings Ta = 25℃

< For Tr1 and Tr2 in common >

Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-40 to +10	V
Output Current	I_O	-30	mA
Collector Current	$I_{C(Max)}$	-100	
Power Dissipation	P_D *	300	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* 200mW per element must not be exceeded.

Electrical Characteristics Ta = 25℃

< For Tr1 and Tr2 in common >

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	V_{CC} = -5V , I_O = -100μA			-0.5	V
	$V_{I(on)}$	V_O = -0.2V , I_O = -5mA	-3			
Output Voltage	$V_{O(on)}$	I_O/I_I = -10mA/-0.5mA		-0.1	-0.3	V
Input Current	I_I	V_I = -5V			-0.36	mA
Output Current	$I_{O(off)}$	V_{CC} = -50V , V_I = 0V			-0.5	μA
DC Current Gain	G_I	V_O = -5V , I_O = -5mA	56			
Input Resistance	R_1		15.4	22	28.6	kΩ
Resistance Ratio	R_2/R_1		0.8	1	1.2	
Transistion Frequency	f_T *	V_{CE} = -10V , I_E = 5mA , f = 100MHz		250		MHz

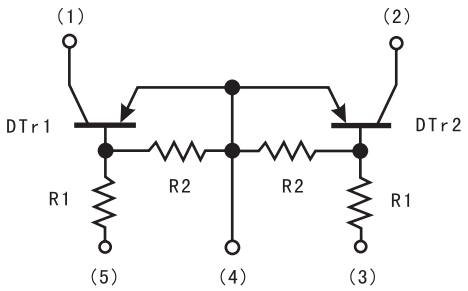
* Characteristics of built-in transistor

Marking

Marking	A1

FMA1A

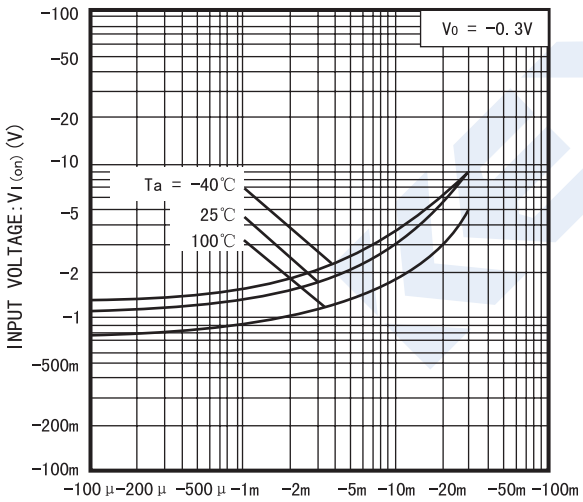
■ Equivalent Circuit



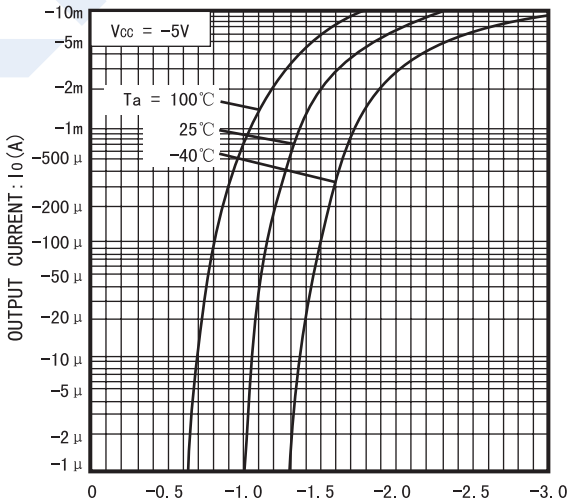
R1 = R2 = 22kΩ

(1) OUT
(2) OUT
(3) IN
(4) GND
(5) IN

■ Electrical Characteristics Curves

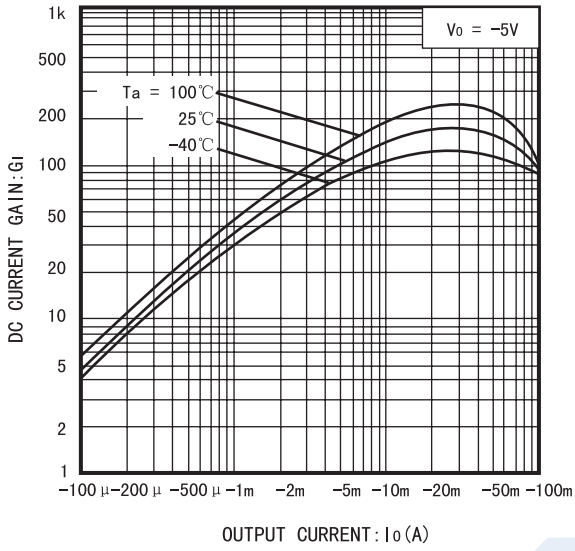


Input voltage vs. output current
(ON characteristics)

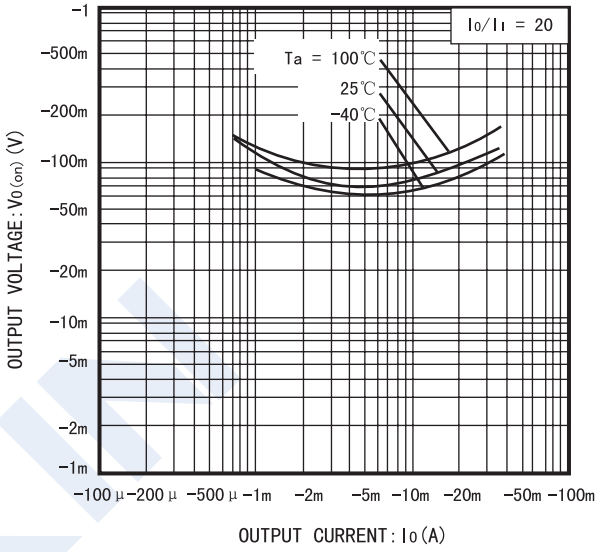


Output current vs. input voltage
(OFF characteristics)

FMA1A



DC current gain vs. Output current



Output voltage vs. Output current