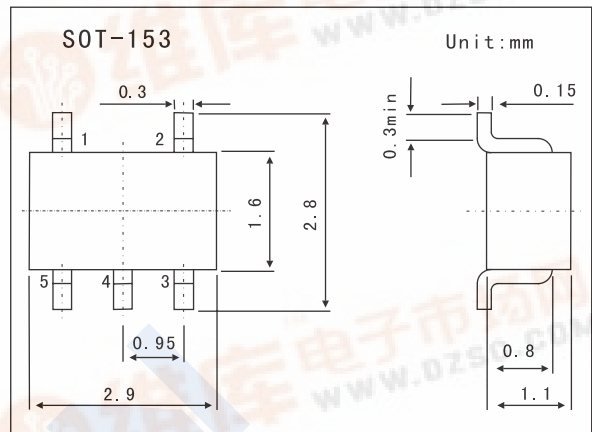


SMD Type Transistors

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°C

< For Tr1 and Tr2 in common >

Parameter	Symbol	Rating	Unit
Supply Voltage	V <sub>CC</sub>	-50	V
Input Voltage	V <sub>IN</sub>	-40 to +10	V
Output Current	I <sub>O</sub>	-30	mA
Collector Current	I <sub>C(Max)</sub>	-100	
Power Dissipation	P <sub>D</sub> *	300	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* 200mW per element must not be exceeded.

Electrical Characteristics Ta = 25°C

< For Tr1 and Tr2 in common >

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Input Voltage	V <sub>I(off)</sub>	V <sub>CC</sub> = -5V , I <sub>O</sub> = -100 μ A			-0.5	V
	V <sub>I(on)</sub>	V <sub>O</sub> = -0.2V , I <sub>O</sub> = -5mA	-3			
Output Voltage	V <sub>O(on)</sub>	I <sub>O</sub> /I <sub>I</sub> = -10mA/-0.5mA		-0.1	-0.3	V
Input Current	I <sub>I</sub>	V <sub>I</sub> = -5V			-0.36	mA
Output Current	I <sub>O(off)</sub>	V <sub>CC</sub> = -50V , V <sub>I</sub> = 0V			-0.5	μ A
DC Current Gain	G <sub>I</sub>	V <sub>O</sub> = -5V , I <sub>O</sub> = -5mA	56			
Input Resistance	R <sub>1</sub>		15.4	22	28.6	k Ω
Resistance Ratio	R <sub>2</sub> /R <sub>1</sub>		0.8	1	1.2	
Transistion Frequency	f <sub>r</sub> *	V <sub>CE</sub> = -10V , I <sub>E</sub> = 5mA , f = 100MHz		250		MHz

\* Characteristics of built-in transistor

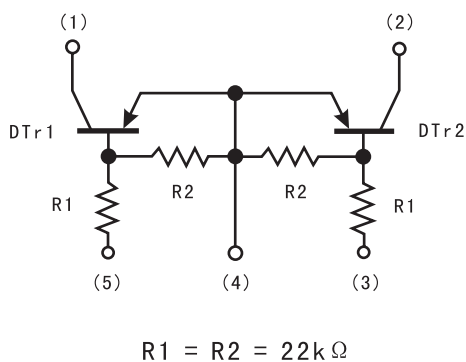
Marking

Marking	A1
---------	----



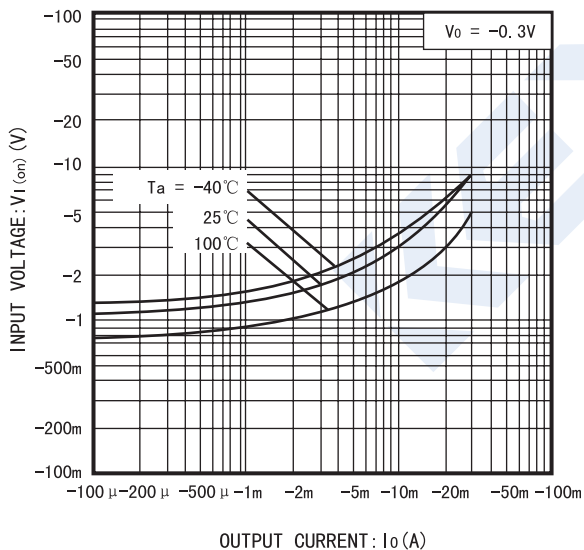
### FMA1A

■ Equivalent Circuit

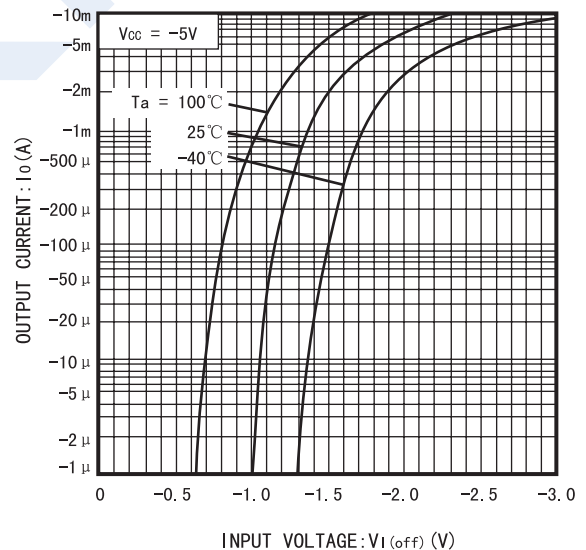


- (1) OUT
- (2) OUT
- (3) IN
- (4) GND
- (5) IN

■ Electrical Characteristics Curves

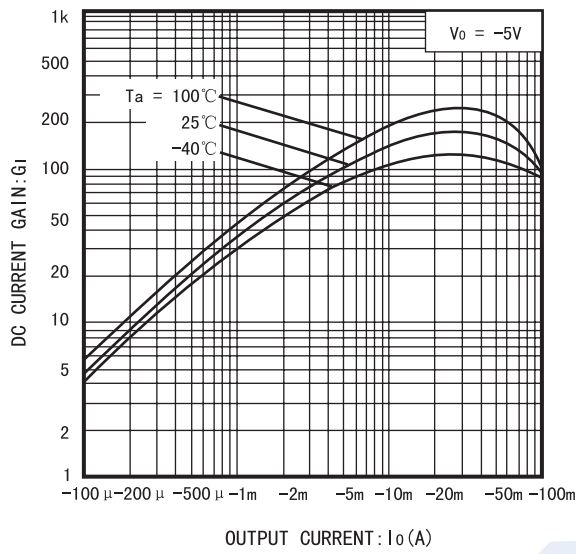


Input voltage vs. output current  
(ON characteristics)

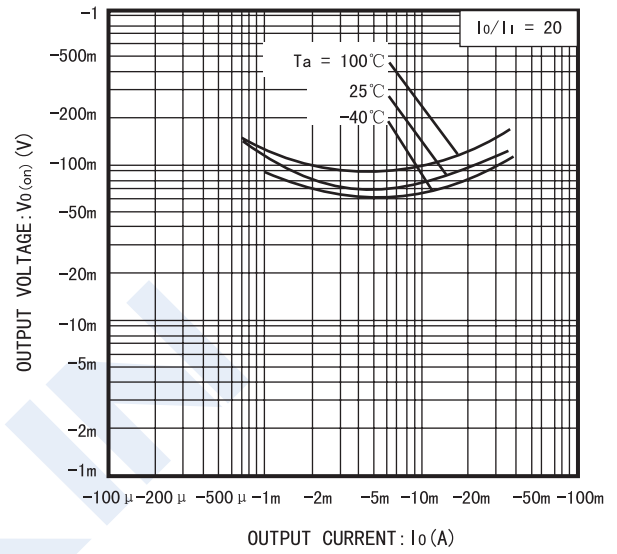


Output current vs. input voltage  
(OFF characteristics)

FMA1A



DC current gain vs. Output current



Output voltage vs. Output current