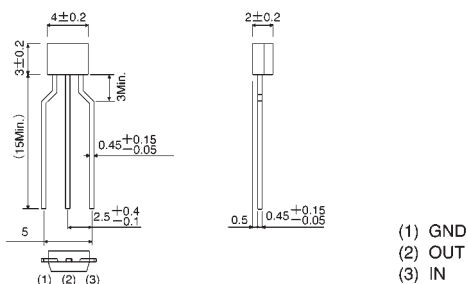
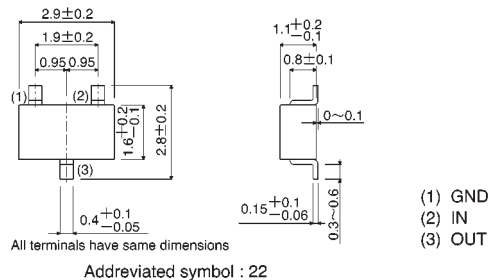
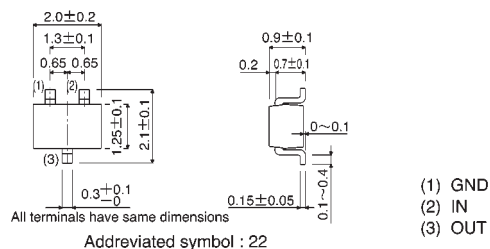
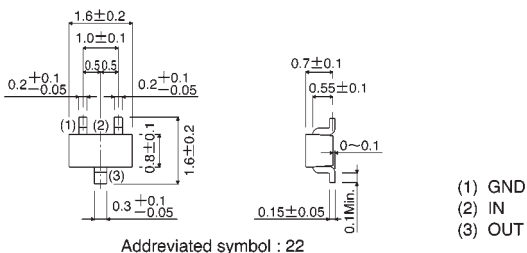
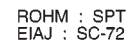
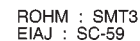
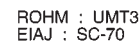
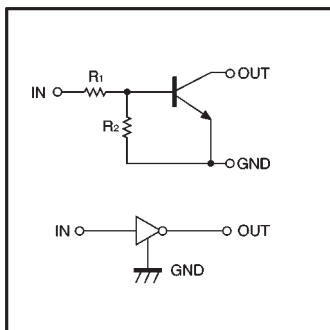


DTC123ESA

●External dimensions (Units: mm)

- Equivalent circuit



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits(DTC123E□)				Unit
		E	UA	KA	SA	
Supply voltage	V _{CC}	50				V
Input voltage	V _{IN}	-10~+12				V
Output current	I _o	100				mA
	I _{C(Max.)}	100				
Power dissipation	P _d	150	200		300	mW
Junction temperature	T _j	150				°C
Storage temperature	T _{stg}	-55~+150				°C

●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 =100 μA
	V _{I(on)}	3	—	—		V _O =0.3V, I _O =20mA
Output voltage	V _{O(on)}	—	0.1	0.3	V	I _O /I _I =10mA/0.5mA
Input current	I _I	—	—	3.8	mA	V _I =5V
Output current	I _{O(off)}	—	—	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	20	—	—	—	V _O =5V, I _O =20mA
Input resistance	R _I	1.54	2.2	2.86	kΩ	—
Resistance ratio	R ₂ /R ₁	0.8	1	1.2	—	—
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *

* Transition frequency of the device

●Packaging specifications

Part No.	Package	EMT3	UMT3	SMT3	SPT
	Packaging type	Taping	Taping	Taping	Taping
	Code	TL	T106	T146	TP
	Basic ordering unit (pieces)	3000	3000	3000	5000
DTC123EE		○	—	—	—
DTC123EUA		—	○	—	—
DTC123EKA		—	—	○	—
DTC123ESA		—	—	—	○

●Electrical characteristic curves

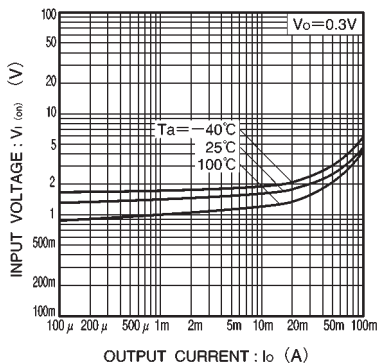


Fig.1 Input voltage vs. output current (ON characteristics)

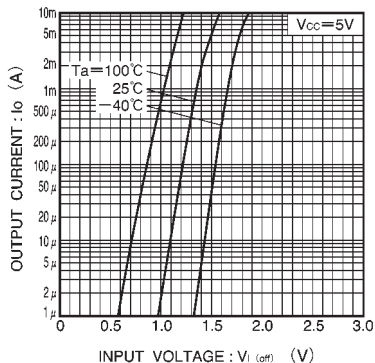


Fig.2 Output current vs. input voltage (OFF characteristics)

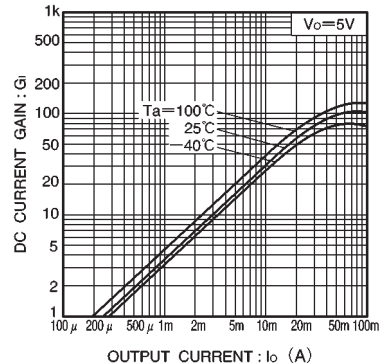


Fig.3 DC current gain vs. output current

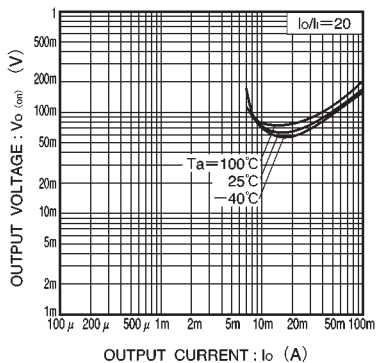


Fig.4 Output voltage vs. output current