



DTC123JUA

Features

- Halogen free available upon request by adding suffix "-HF"
- Epitaxial Planar Die Construction
- Complementary NPN Types Available
- Built-in Bias Resistors
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

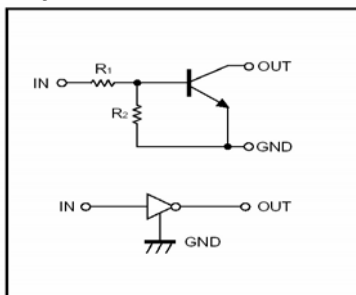
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{CC}	Supply voltage	---	50	---	V
V _{IN}	Input voltage	-5	---	+12	V
P _d	Power dissipation	---	200	---	mW
T _J	Junction temperature	---	150	---	°C
T _{stg}	Storage temperature	-55	---	150	°C
I _O	Output current	---	100	---	mA
I _{C(MAX)}		---	100	---	

Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{I(off)}	Input voltage (V _{CC} =5V, I _O =100 μA) (V _O =0.3V, I _O =5mA)	---	---	0.5	V
V _{I(on)}		1.1	---	---	V
V _{O(on)}	Output voltage (I _O =5mA, I _I =0.25mA)	---	0.1	0.3	V
I _I	Input current (V _I =5V)	---	---	3.6	mA
I _{O(off)}	Output current (V _{CC} =50V, V _I =0)	---	---	0.5	μA
G _I	DC current gain (V _O =5V, I _O =10mA)	80	---	---	
R ₁	Input resistance	1.54	2.2	2.86	K _Ω
R ₂ /R ₁	Resistance ratio	17	21	26	
f _T	Transition frequency (V _{CE} =10V, I _E =5mA, f=100MHz)	---	250	---	MHz

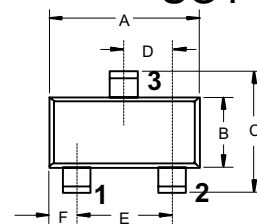
Equivalent circuit



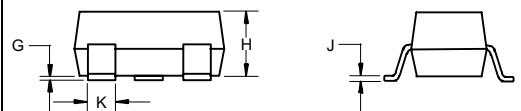
*Marking: E42

Digital Transistors

SOT-323

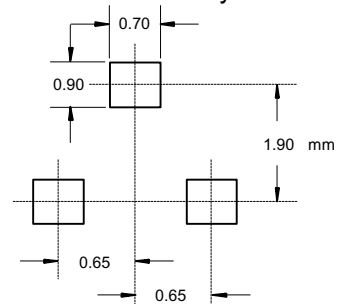


1:IN
 2:GND
 3:OUT



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

Suggested Solder Pad Layout



Typical Characteristics

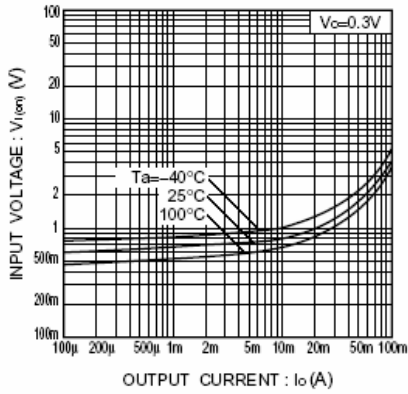


Fig.1 Input voltage vs. output current (ON characteristics)

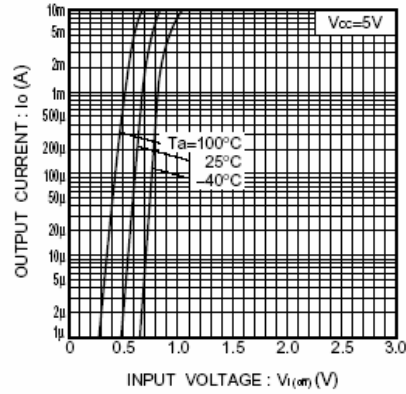


Fig.2 Output current vs. input voltage (OFF characteristics)

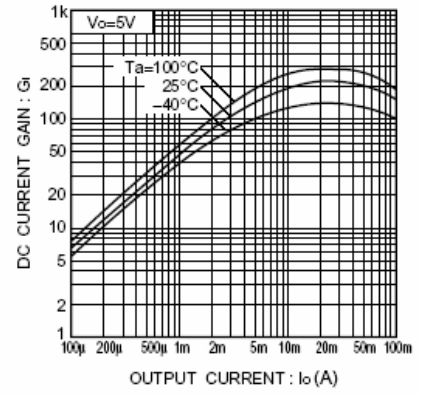


Fig.3 DC current gain vs. output current

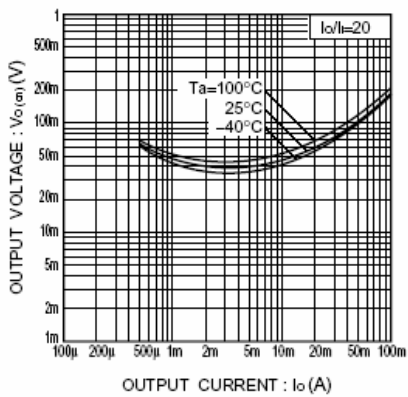


Fig.4 Output voltage vs. output current



Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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