Micro Commercial Components

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DTA144ECA

PNP
Digital Transistors

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- Only the on/off conditions need to be set for operation, making device design easy
- Halogen free available upon request by adding suffix "-HF"

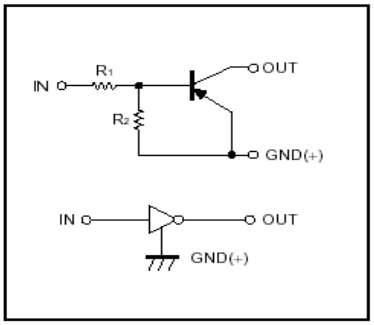
Absolute maximum ratings @ 25℃

Symbol	Parameter	Min	Typ	Max	Unit
V_{CC}	Supply voltage	---	-50	---	V
V_{IN}	Input voltage	-40	---	10	V
I_O $I_{C(MAX)}$	Output current	---	-30 -100	---	mA
P_d	Power dissipation	---	200	---	mW
T_j	Junction temperature	---	150	---	℃
T_{stg}	Storage temperature	-55	---	150	℃

Electrical Characteristics @ 25℃

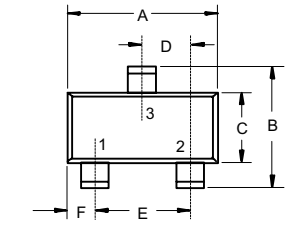
Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage (V_{CC}=-5V, I_O=-100μA)	---	---	-0.5	V
$V_{I(on)}$	(V_O=-0.3V, I_O=-2mA)	-3.0	---	---	V
$V_{O(on)}$	Output voltage (I_O/I_I=-10mA/-0.5mA	---	---	-0.3	V
I_I	Input current (V_I=-5V)	---	---	-0.18	mA
$I_{O(off)}$	Output current (V_{CC}=-50V, V_I=0)	---	---	-0.5	μA
G_I	DC current gain (V_O=-5V, I_O=-5mA)	68	---	---	
R_1	Input resistance	32.9	47	61.1	KΩ
R_2/R_1	Resistance ratio	0.8	1.0	1.2	
f_T	Transition frequency (V_{CE}=-10V, I_E=5mA, f=100MHz)	---	250	---	MHz

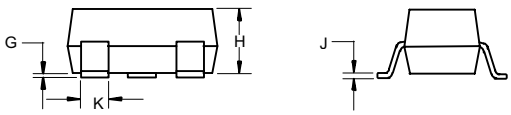
●Equivalent circuit



*Marking: 16

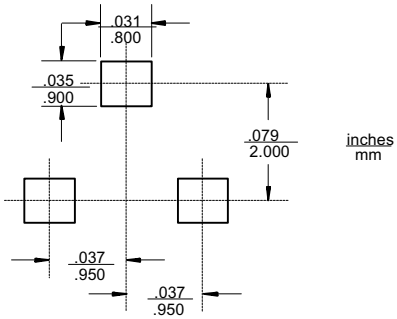
SOT-23





DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



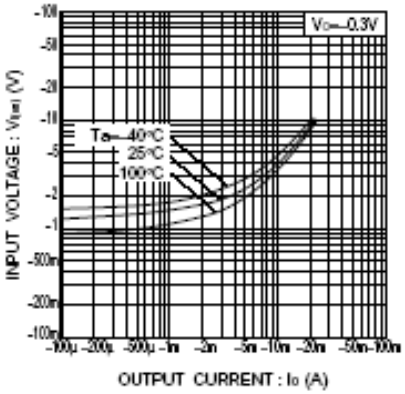


Fig.1 Input voltage vs. output current (ON characteristics)

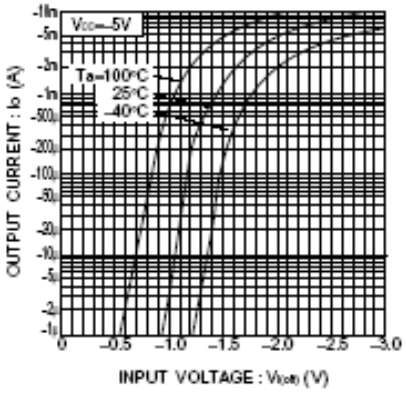


Fig.2 Output current vs. input voltage (OFF characteristics)

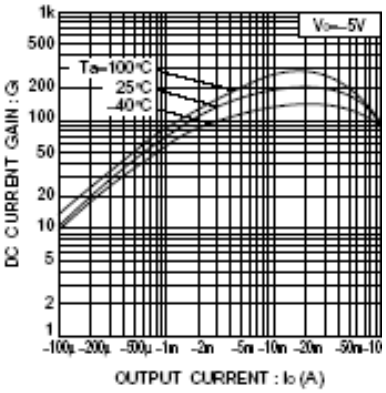


Fig.3 DC current gain vs. output current

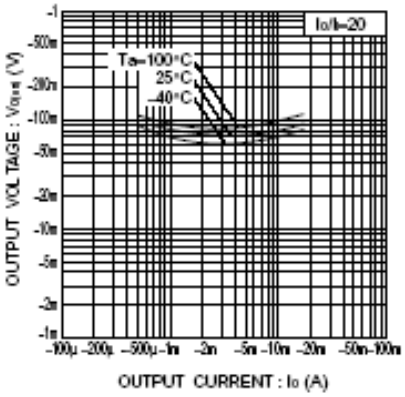


Fig.4 Output voltage vs. output current

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Ordering Information :

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

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