



Micro Commercial Components



Micro Commercial Components
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DTA123YCA

Digital Transistors

Features

- Halogen free available upon request by adding suffix "-HF"
- Epitaxial Planar Die Construction
- Complementary PNP Types Available
- Built-In Biasing 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

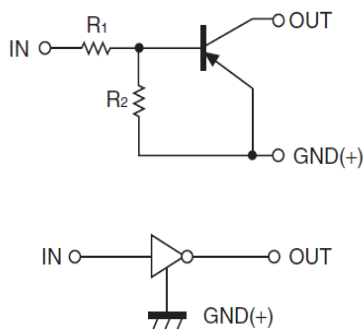
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V_{CC}	Supply voltage	---	-50	---	V
V_{IN}	Input voltage	-12	---	+5	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

Electrical Characteristics @ 25°C

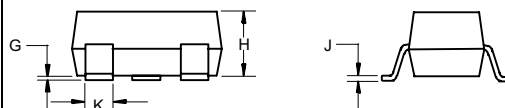
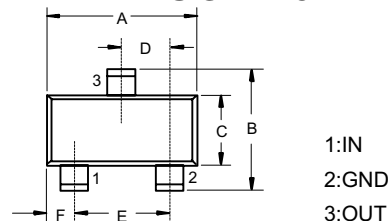
Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ($V_{CC}=-5V$, $I_O=-100\mu A$)	-0.3	---	---	V
$V_{I(on)}$	Input voltage ($V_O=-0.3V$, $I_O=-20mA$)	---	---	-3	V
$V_{O(on)}$	Output voltage ($I_O=-10mA$, $I_I=-0.5mA$)	---	---	-0.3	V
I_I	Input current ($V_I=-5V$)	---	---	-3.8	mA
$I_{O(off)}$	Output current ($V_{CC}=-50V$, $V_I=0$)	---	---	-0.5	μA
G_I	DC current gain ($V_O=-5V$, $I_O=-10mA$)	33	---	---	
R_1	Input resistance	1.54	2.2	2.86	K_{Ω}
R_2/R_1	Resistance ratio	3.6	4.5	5.5	
f_T	Transition frequency ($V_{CE}=-10V$, $I_E=-5mA$, $f=100MHz$)	---	250	---	MHz

Equivalent Circuit



*Marking: 52

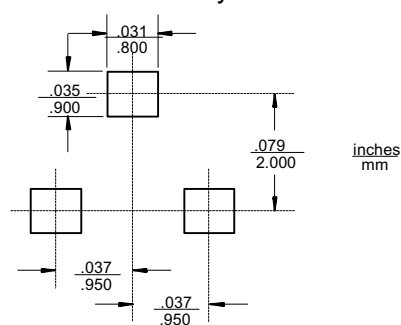
SOT-23



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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





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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