

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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DTC144EE

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

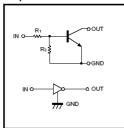
Absolute maximum ratings @ 25°

Symbol	Parameter		Тур	Max	Unit
V_{CC}	Supply voltage		50		V
V_{IN}	Input voltage	-10		40	V
Ιο	Output current		100		mA
P_d	Power dissipation		150		mW
Tj	Junction temperature		150		$^{\circ}\mathbb{C}$
T _{stg}	Storage temperature	-55		150	$^{\circ}\mathbb{C}$

Electrical Characteristics @ 25℃

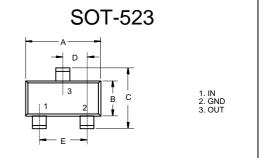
Symbol	Parameter		Тур	Max	Unit
$V_{I(off)}$	Input voltage (V _{CC} =5V, I _O =100 µ A)			0.5	V
$V_{I(on)}$	$(V_0=0.3V, I_0=2mA)$	3.0			V
$V_{O(on)}$	Output voltage (I _O /I _I =10mA/0.5mA)			0.3	V
l _l	Input current (V _I =5V)			0.18	mA
I _{O(off)}	Output current (V _{CC} =50V, V _I =0)			0.5	μА
Gı	DC current gain (V ₀ =5V, I ₀ =5mA)	68			
R ₁	Input resistance	32.9	47	61.1	$\mathbf{K}\Omega$
R ₂ /R ₁	Resistance ratio	0.8	1.0	1.2	
f⊤	Transition frequency $(V_{CE}=10V, I_{E}=5mA, f=100MHz)$		250		MHz

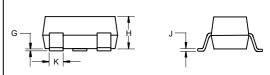
●Equivalent circuit



*Marking: 26

NPN Digital Transistors





DIMENSIONS					
	INCHES		М		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.059	.067	1.50	1.70	
В	.030	.033	0.75	0.85	
С	.057	.069	1.45	1.75	
D	.020 Nominal		0.50Nominal		
Е	.035	.043	0.90	1.10	
G	.000	.004	.000	.100	
Н	.028	.031	.70	0.80	
J	.004	.008	.100	.200	
K	.010	.014	.25	.35	

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Electrical characteristic curves

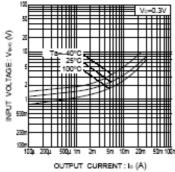


Fig.1 Input voltage vs. output current (ON characteristics)

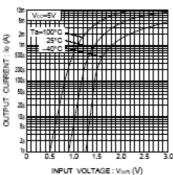


Fig.2 Output current vs. input voltage (OFF characteristics)

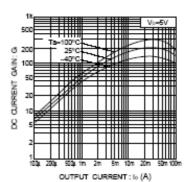


Fig.3 DC current gain vs. output current

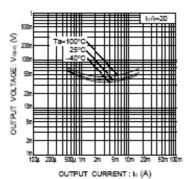


Fig.4 Output voltage vs. output current



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Ordering Information:

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

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