

**SOT-323 DIGITAL TRANSISTORS
TRANSISTORS(PNP)**

FEATURES

- * Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors.(see equivalent circuit).
- * The bias resistors consist of thin-film resistors with complete isolation to allow negative 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.

MECHANICAL DATA

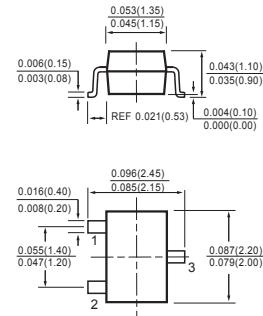
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.006 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.



SOT-323



MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

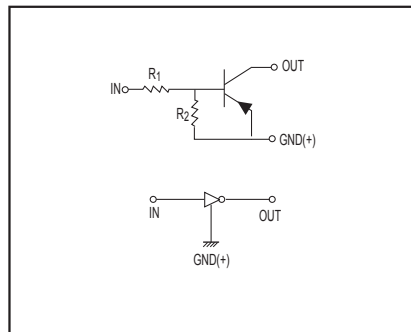
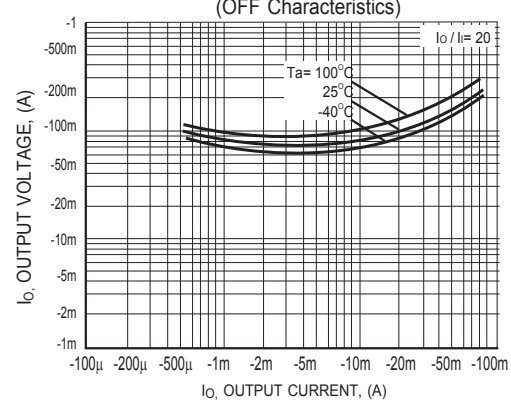
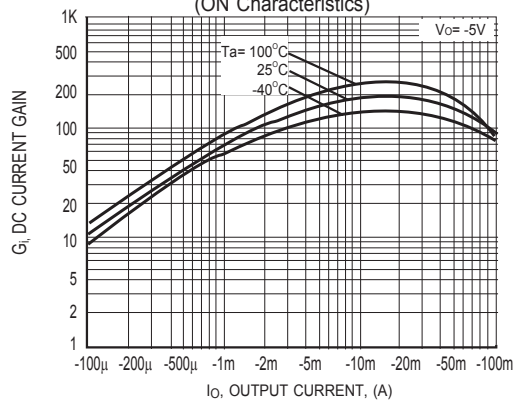
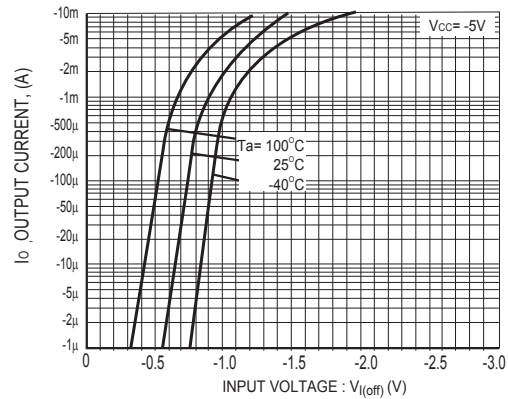
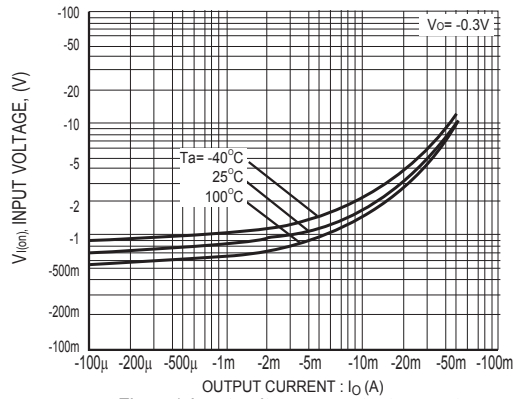
RATINGS	SYMBOL	LIMITS	UNITS
Supply voltage	V _{CC}	-50	V
Input voltage	V _{IN}	-40~+6	V
Output current	I _O	-70	mA
	I _{C(MAX)}	-100	
Power dissipation	P _d	200	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Input voltage (V _{CC} = -5V, I _O = -100μA)	V _{I(off)}	-	-	-0.3	V
Input voltage (V _O = -0.3V, I _O = -1mA)	V _{I(on)}	-1.4	-	-	
Output voltage (I _O / I _I = -5mA / -0.25mA)	V _{O(on)}	-	-	-0.3	V
Input current (V _I = -5V)	I _I	-	-	-0.88	mA
Output current (V _{CC} = -50V, V _I = 0)	I _{O(off)}	-	-	-0.5	μA
DC current gain (V _O = -5V, I _O = -5mA)	G _I	68	-	-	-
Input resistance	R ₁	7	10	13	KΩ
Resistance ratio	R ₂ / R ₁	3.7	4.7	5.7	-
Transistion frequency (V _O = -10V, I _O = 5mA, f= 100MHz)	f _T	-	250	-	MHz

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (DTA114YUA)



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