

Features

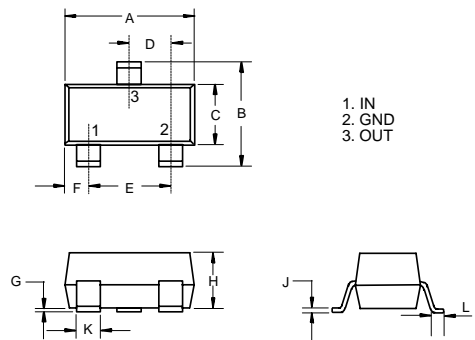
- Epitaxial Planar Die Construction
- Built-In Biasing Resistors
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

NPN Digital Transistor

Maximum Ratings @ 25°C Unless Otherwise Specified

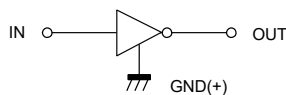
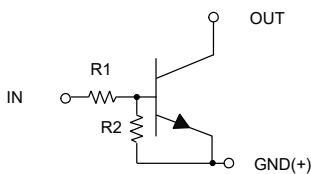
Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{CC}	---	50	---	V
Input Voltage	V_{IN}	-5	---	+12	V
Output Current	I_O	---	500	---	mA
Power Dissipation	P_D	---	200	---	mW
Junction Temperature	T_J	---	---	150	°C
Storage Temperature	T_{stg}	-55	---	150	°C

SOT-23



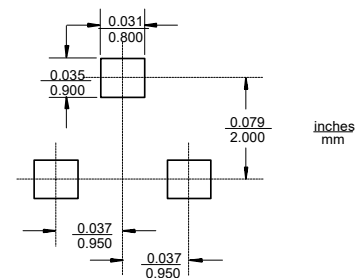
Device Marking: 134

Internal Structure



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input Voltage	$V_{I(off)}$	0.3	---	---	V	$V_{CC}=5V, I_O=100\mu A$
	$V_{I(on)}$	---	---	2	V	$V_O=0.3V, I_O=20mA$
Output Voltage	$V_{O(on)}$	---	---	0.3	V	$I_O=10mA, I_I=2.5mA$
Input Current	I_I	---	---	0.6	mA	$V_I=5V$
Output Current	$I_{O(off)}$	---	---	0.5	μA	$V_{CC}=50V, V_I=0$
DC Current Gain	G_I	56	---	---		$V_O=5V, I_O=50mA$
Input Resistance	R_1	1.54	2.2	2.86	K Ω	
Resistance Ratio	R_2/R_1	3.6	4.5	5.5		
Transition Frequency	f_T	---	200	---	MHz	$V_{CE}=10V, I_E=5mA, f=100MHz$

Curve Characteristics

Fig. 1 - Output Voltage Characteristics

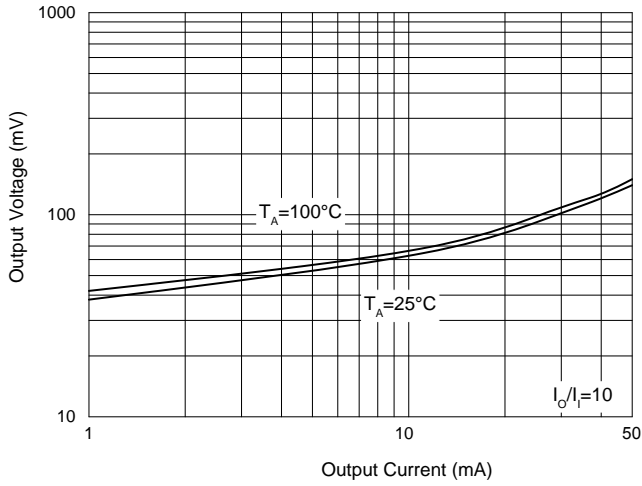


Fig. 2 - DC Current Gain Characteristics

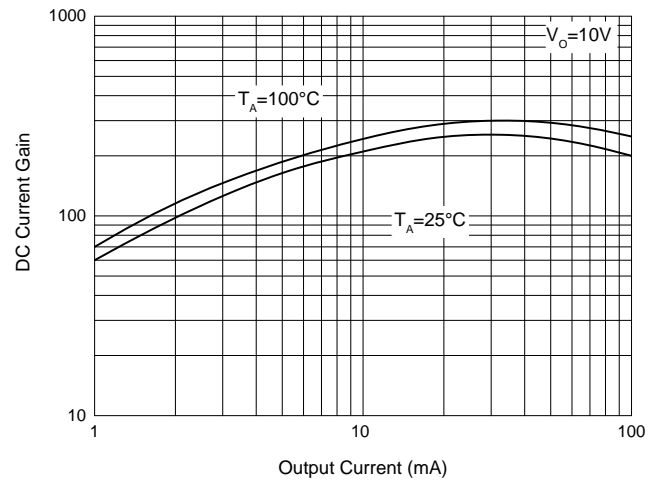
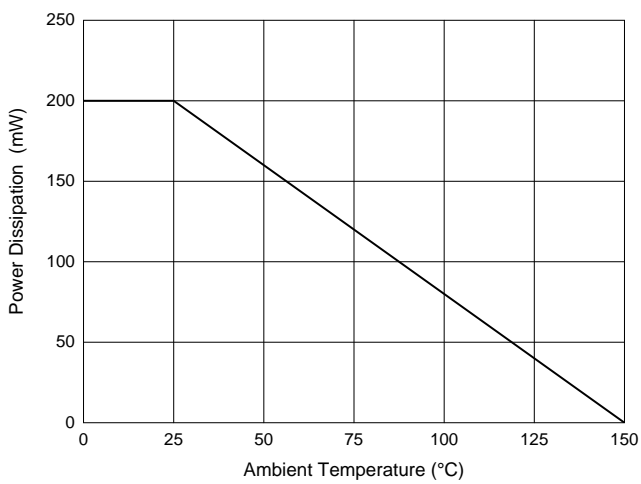


Fig. 3 - Power Derating Curve



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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