

Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- 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)

Dual NPN Digital Transistor

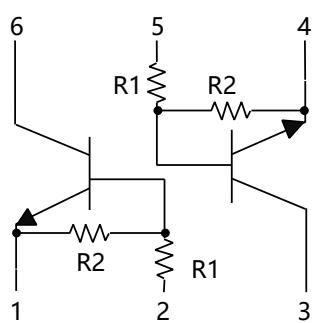
Maximum Ratings @ 25°C Unless Otherwise Specified

- Thermal Resistance: 833°C/W Junction to Ambient

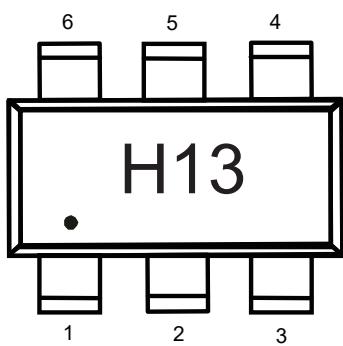
Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	-5~+30	V
Output Current	I _O	100	mA
Power Dissipation	P _D	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



Device Marking



SOT-363					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65		TYP.
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

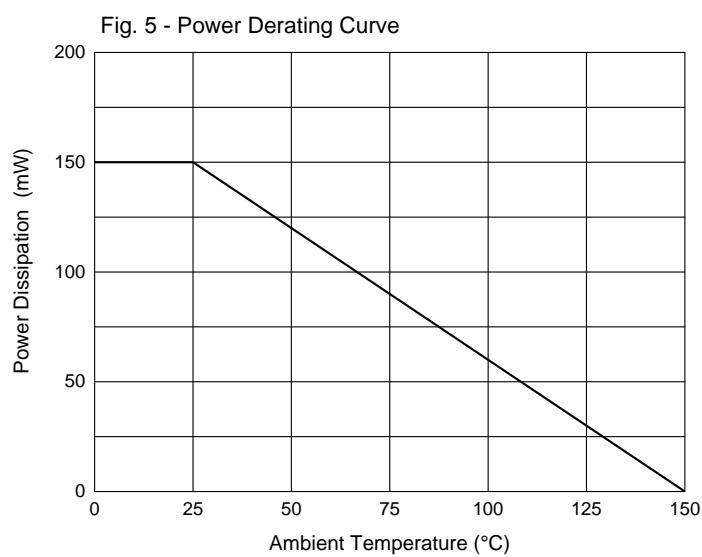
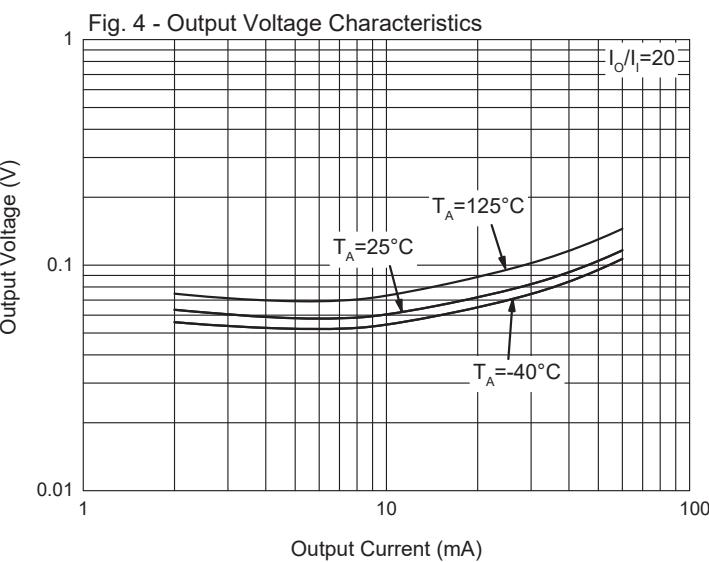
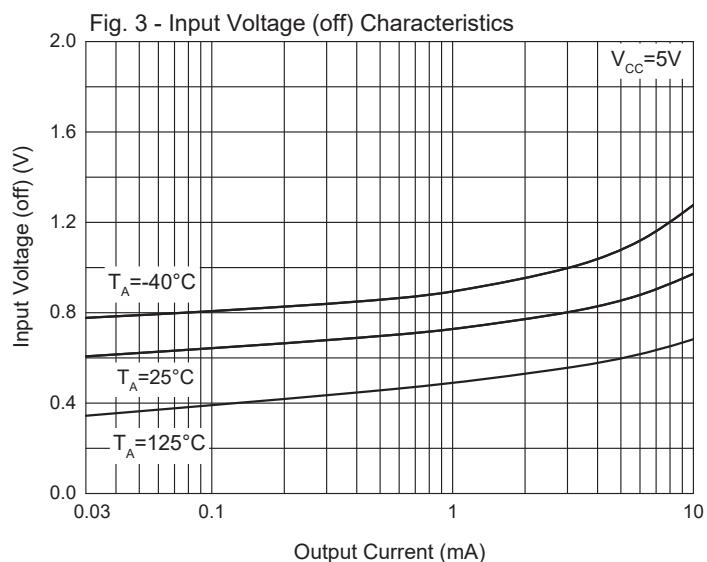
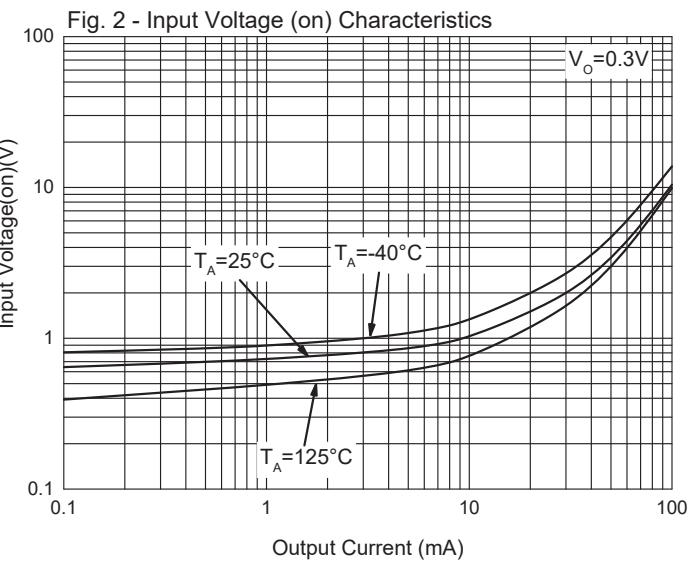
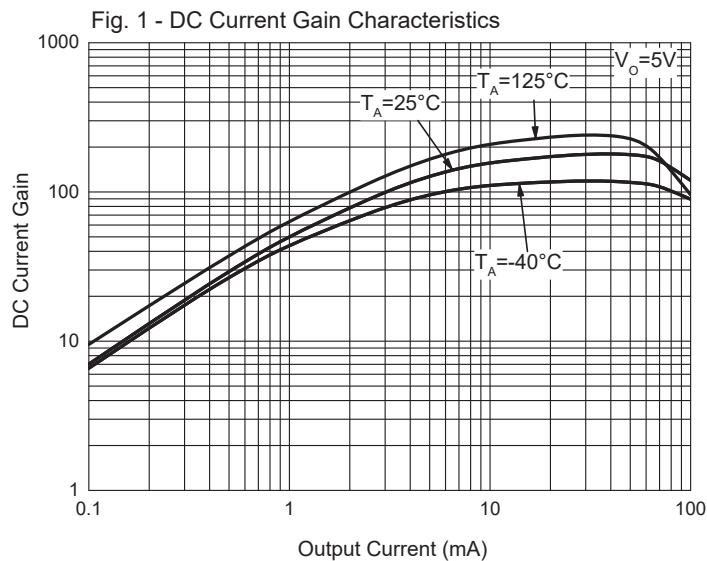
DIMENSIONS

Suggested Solder Pad Layout

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input Voltage	$V_{I(\text{off})}$	0.5	---	---	V	$V_{CC}=5V, I_O=100\mu A$
	$V_{I(\text{on})}$	---	---	1.3	V	$V_O=0.3V, I_O=5mA$
Output Voltage	$V_{O(\text{on})}$	---	---	0.3	V	$I_O=10mA, I_I=0.5mA$
Input Current	I_I	---	---	1.8	mA	$V_I=5V$
Output Current	$I_O(\text{off})$	---	---	0.5	μA	$V_{CC}=50V, V_I=0$
DC Current Gain	G_I	80	---	---		$V_O=5V, I_O=10mA$
Input Resistance	R_I	3.29	4.7	6.11	K Ω	
Resistance Ratio	R_2/R_1	8	10	12		
Transition Frequency	f_T	---	250	---	MHz	$V_{CE}=10V, I_C=5mA, f=100MHz$

Curve Characteristics



Ordering Information

Device	Packing
UMH13NHE3-TP	Tape&Reel:3Kpcs/Reel

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