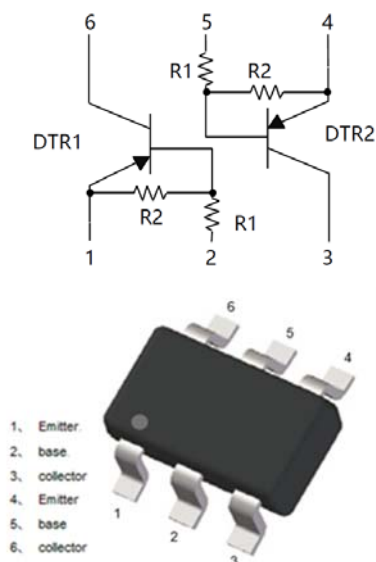


Dual PNP Digital Transistors (Built-in Resistors)



Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

- **Package:** SOT-363
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				B3
Collector-base voltage	V_{CBO}	V		-50
Collector-emitter voltage	V_{CEO}	V		-50
Emitter-base voltage	V_{EBO}	V		-5
Collector current	I_C	mA		-100
Power dissipation	P_D	mW		150
Operation junction temperature	T_J	$^{\circ}\text{C}$		-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$		-55 to +150



UMB3N

RoHS
COMPLIANT

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V _{(BR)CBO}	V	I _C =-50μA	-50		
Collector-emitter breakdown voltage	V _{(BR)CEO}	V	I _C =-1mA	-50		
Emitter-base breakdown voltage	V _{(BR)EBO}	V	I _E =-50μA	-5		
Collector cut-off current	I _{CBO}	uA	V _{CB} =-50V			-0.5
Emitter cut-off current	I _{EBO}	uA	V _{EB} =-4V			-0.5
Collector-emitter saturation voltage	V _{CE(SAT)}	V	I _C =-5mA, I _B =-0.25mA			-0.3
DC current gain	h _{FE}		V _{CE} =-5V, I _C =-1mA	100		600
Input resistance	R _i	kΩ		3.29	4.7	6.11
Transition frequency	f _T	MHz	V _O =-10V, I _O =5mA, f=100MHz		250	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJA} ⁽¹⁾	°C/W	834
Thermal resistance, junction-to-case	R _{θJC} ⁽¹⁾	°C/W	667

Note:

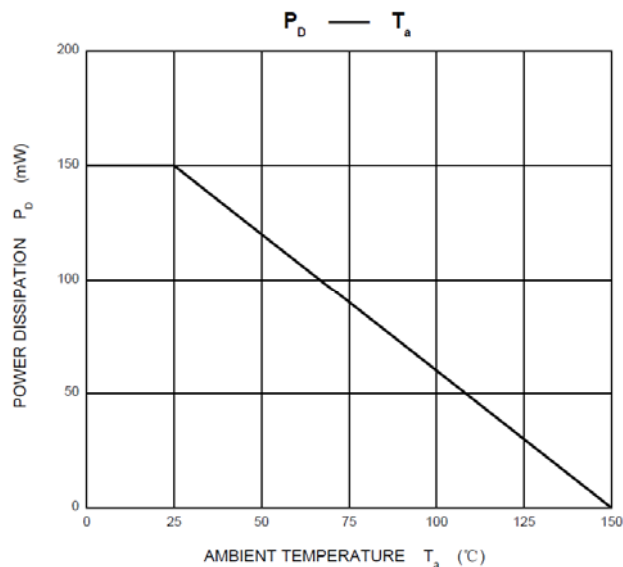
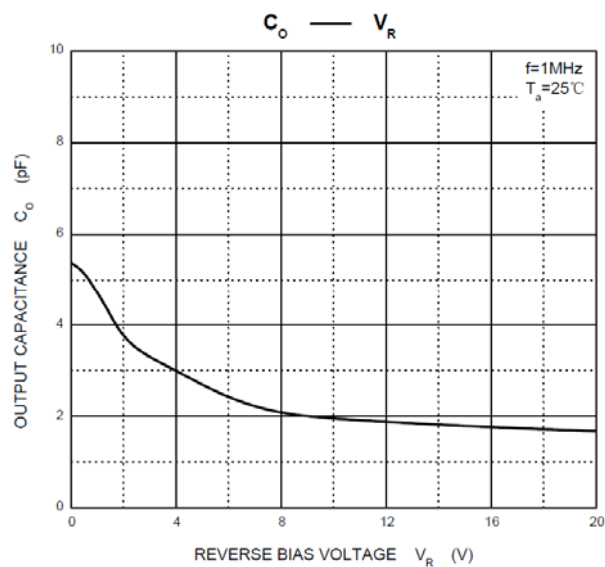
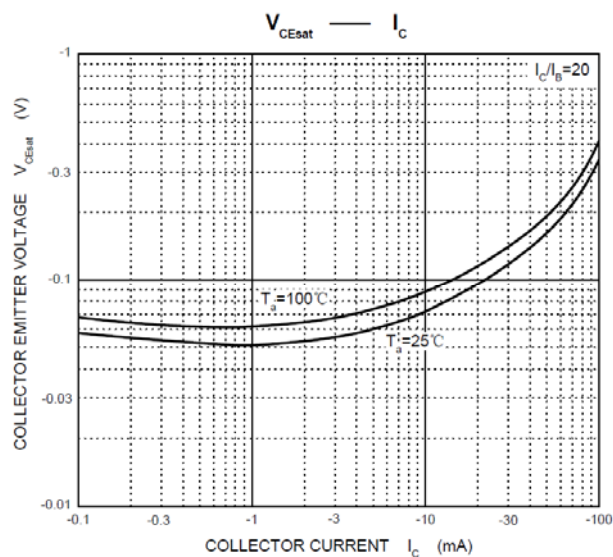
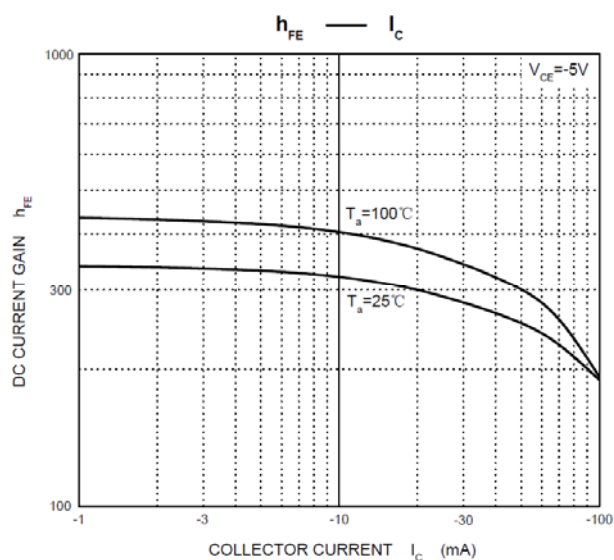
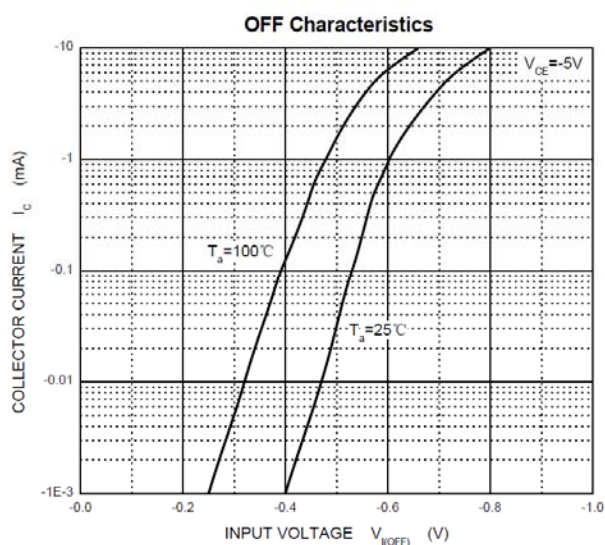
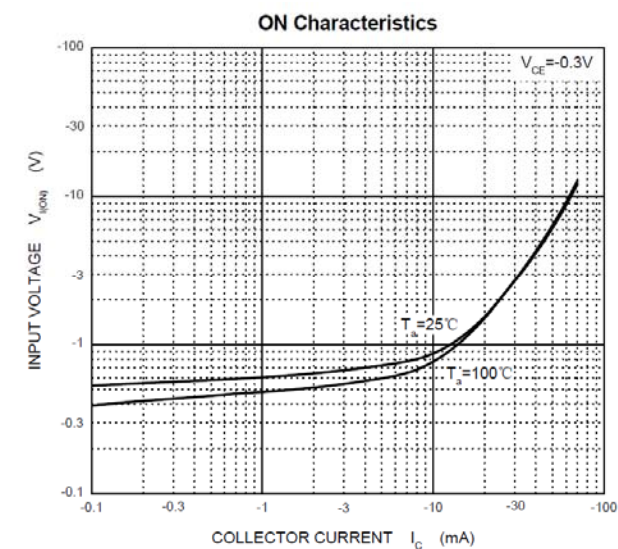
(1) Device mounted on PCB, single-sided copper, with standard footprint

■ Ordering Information

Part Number	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
UMB3N	F2	Approximate 0.009	3000	30000	120000	7" reel
UMB3N	F3	Approximate 0.009	10000	/	210000	7" reel



■Characteristics(Typical)

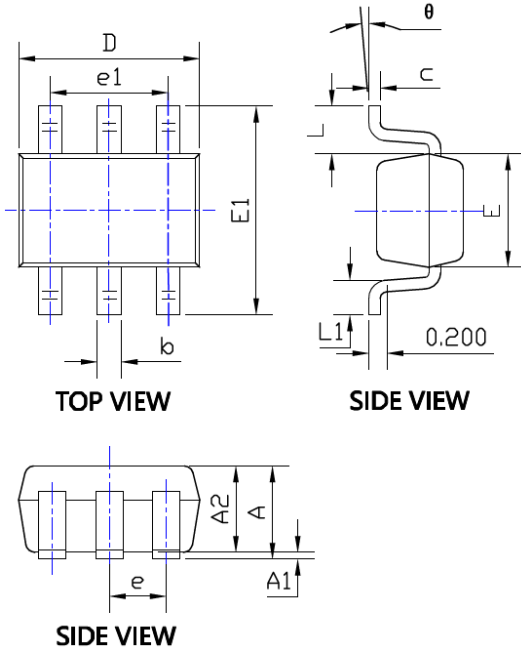




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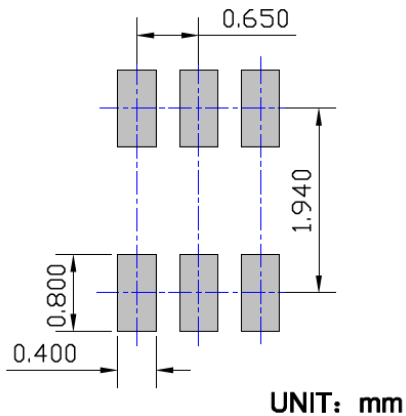
RoHS
COMPLIANT

■ Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.014	0.150	0.350
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

■ Suggested Pad Layout





Disclaimer

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