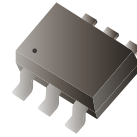


AUMH3N-HF (NPN+NPN)

RoHS Device
Halogen Free



Features

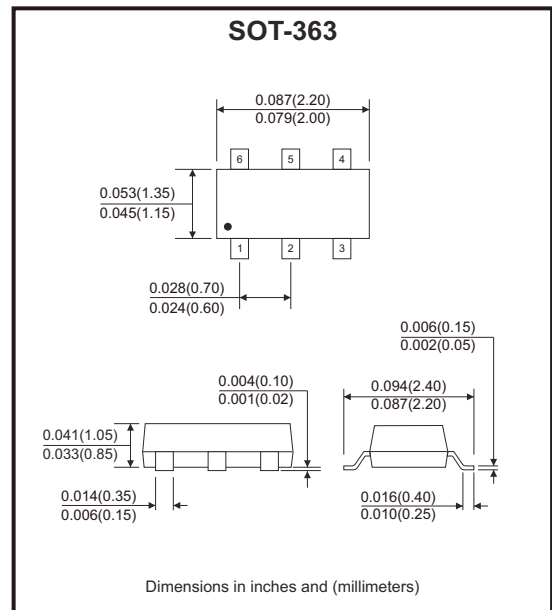
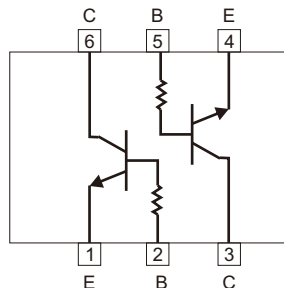
- Transistor elements are independent, eliminating interference.
- Mounting cost and area can be cut in half.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOT-363, molded plastic.
- Molding compound: UL flammability classification rating 94V-0.
- Terminals: Matte tin-plated leads, solderability-per MIL-STD-202, method 208.

Circuit Diagram

E : Emitter
B : Base
C : Collector



Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	$I_{C(\text{Max})}$	100	mA
Power dissipation (Note 1)	P_D	150	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note: 1. 120mW per element must not be exceeded.

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = 50\mu A, I_E = 0$	50			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	50			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 50\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 50V, I_E = 0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.5	μA
DC current gain	h_{FE}	$I_C = 1mA, V_{CE} = 5V$	100		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B = 5mA/0.25mA$			0.3	V
Input resistor	R_1		3.29	4.7	6.11	k Ω
Transition frequency	f_T	$V_{CE} = 10V, I_E = -5mA, f = 100MHz$		250		MHz

Typical Rating and Characteristic Curves (AUMH3N-HF)

Fig.1 - DC Current Gain vs. Collector Current

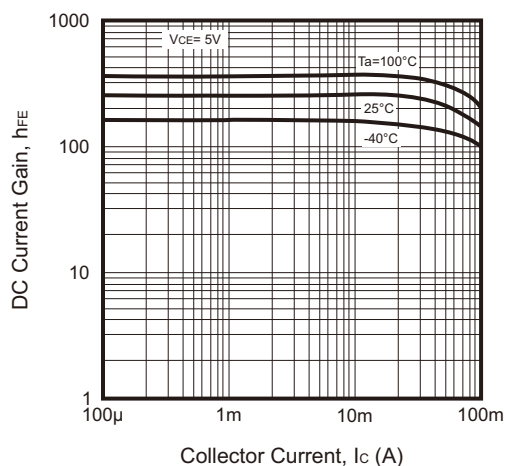
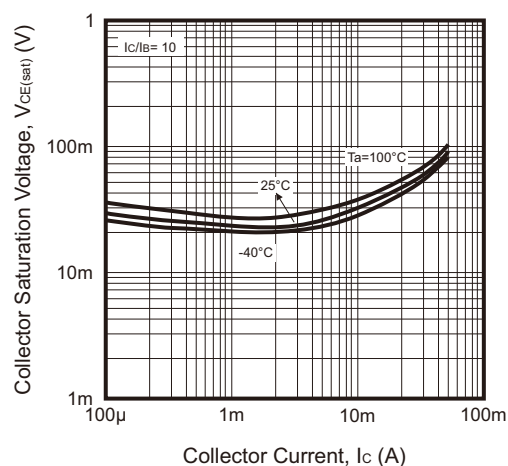
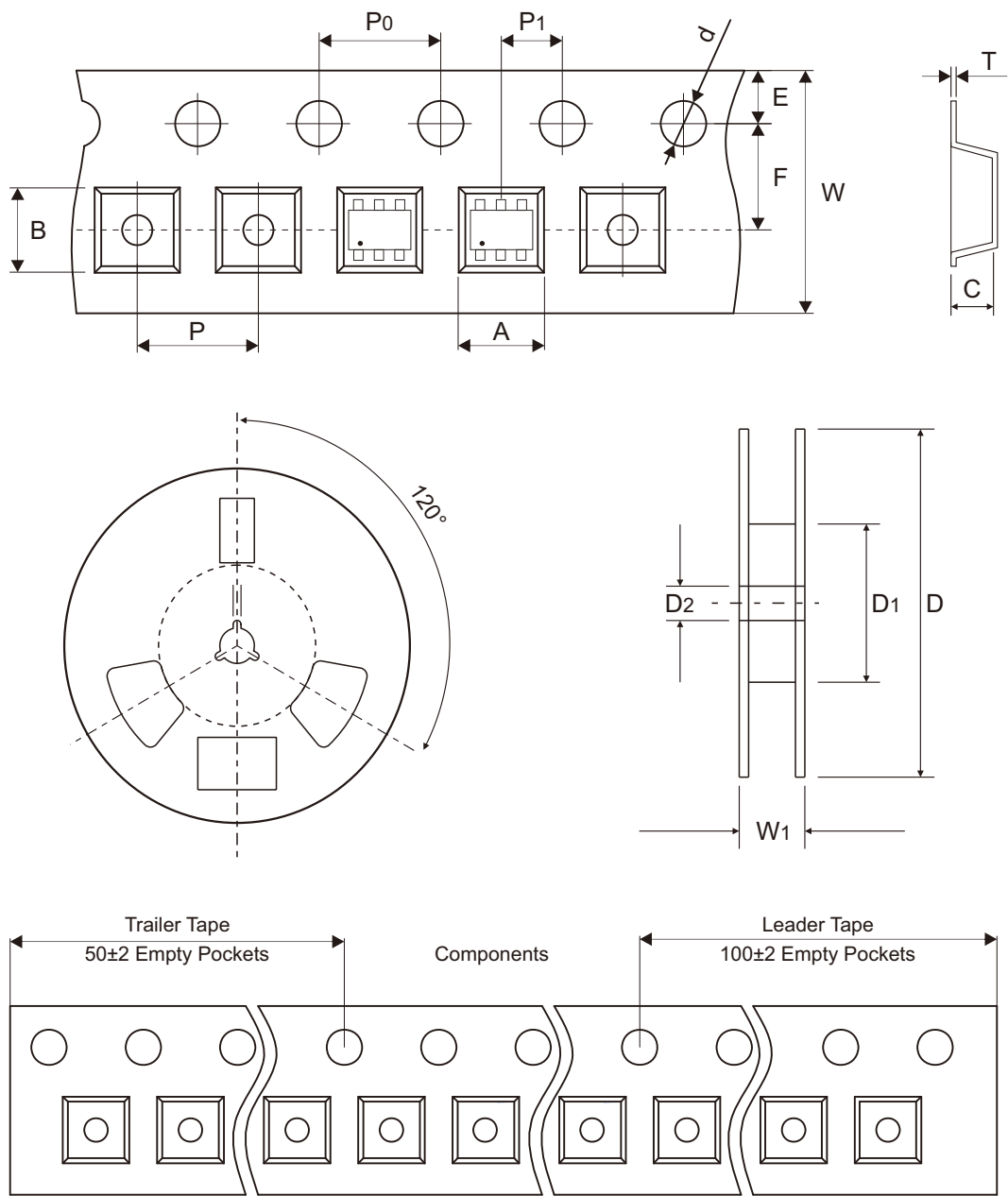


Fig.2 - Collector Emitter Saturation Voltage vs. Collector Current



Reel Taping Specification

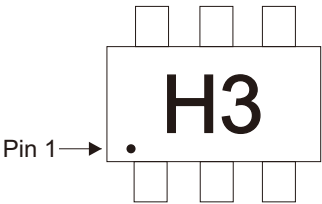


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.40 ± 0.10	2.50 ± 0.10	1.20 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.094 ± 0.004	0.098 ± 0.004	0.047 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-363	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	12.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.492 ± 0.039

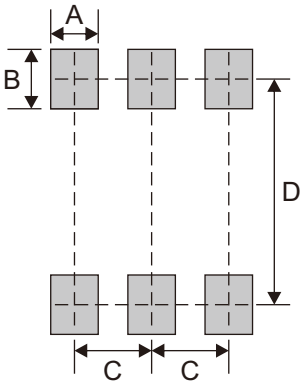
Marking Code

Part Number	Marking Code
AUMH3N-HF	H3



Suggested P.C.B. PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.40	0.016
B	0.50	0.020
C	0.65	0.026
D	1.90	0.075



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-363	3,000	7