

ACDBMHT1100-HF

Reverse Voltage: 100 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free



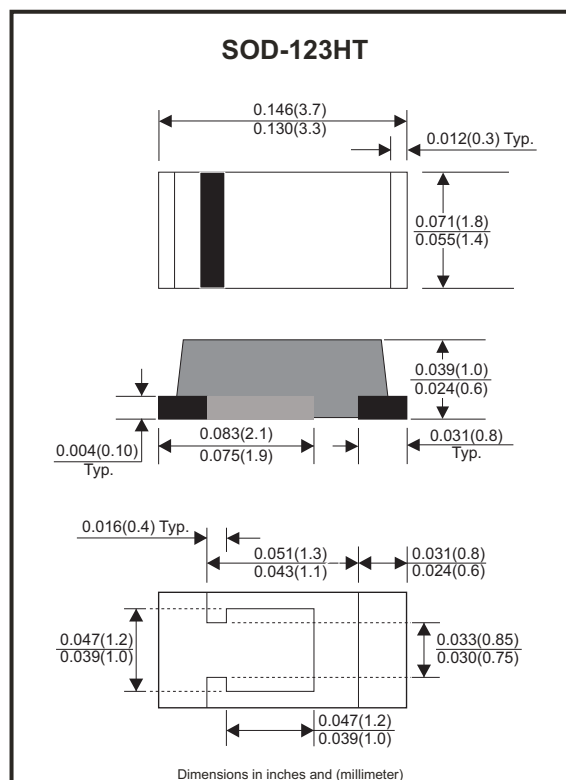
Features

- Excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability, Ultra high-speed switching.
- Guardring for overvoltage protection.
- Silicon epitaxial planar chip, metal silicon junction.
- Comply with AEC-Q101

Mechanical data

- Epoxy : UL94V-0 rated flame retardant.
- Case: Molded plastic, SOD-123HT.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.011 grams approx.

Circuit diagram



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

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	100	V
RMS voltage	V_{RMS}	70	V
Continuous reverse voltage	V_R	100	V
Maximum forward voltage @ $I_F=1.0A$	V_F	0.85	V
Operating temperature	T_J	-55 to +150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward rectified current	See Fig.1	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R			0.5	mA
	$V_R = V_{RRM}$ $T_J = 100^\circ\text{C}$				10	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		76		$^\circ\text{C/W}$
	Junction to case	$R_{\theta JC}$		38		
Diode Junction capacitance	$f=1\text{MHz}$ and applied 4V DC reverse voltage	C_J		120		pF
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

Company reserves the right to improve product design , functions and reliability without notice.

REV: A

Rating and Characteristic Curves (ACDBMHT1100-HF)

Fig.1 - Typical Forward Current Derating Curve

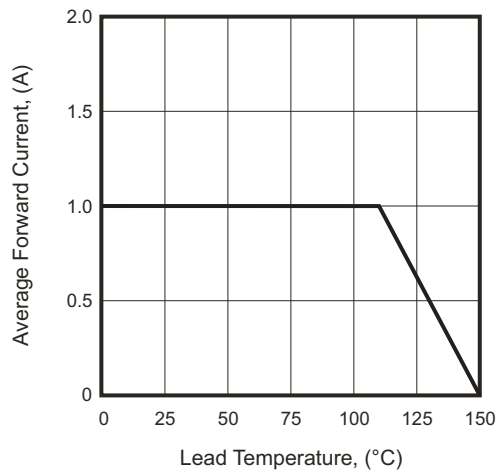


Fig.2 - Typical Forward Characteristics

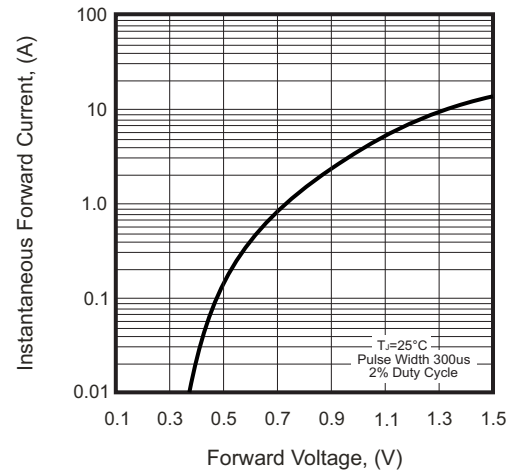


Fig.3 - Maximum Non-repetitive Forward Surge Current

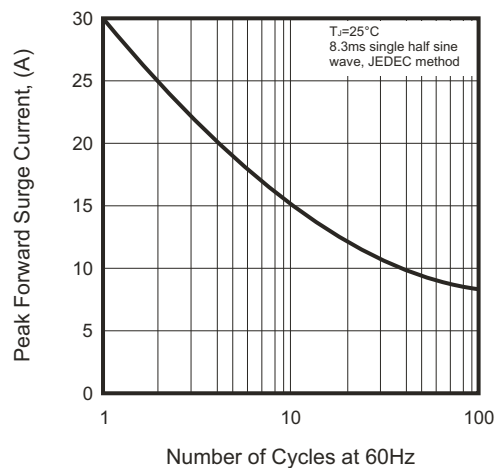


Fig.4 - Typical Reverse Characteristics

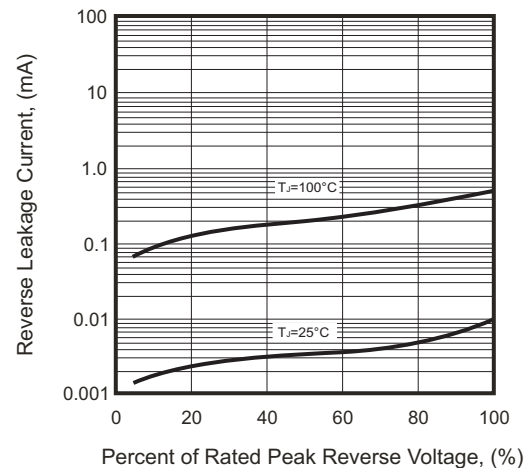
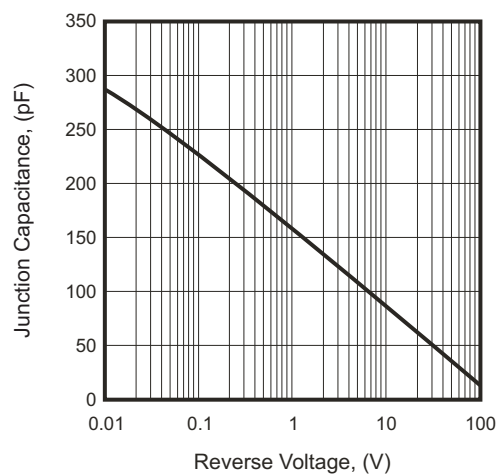
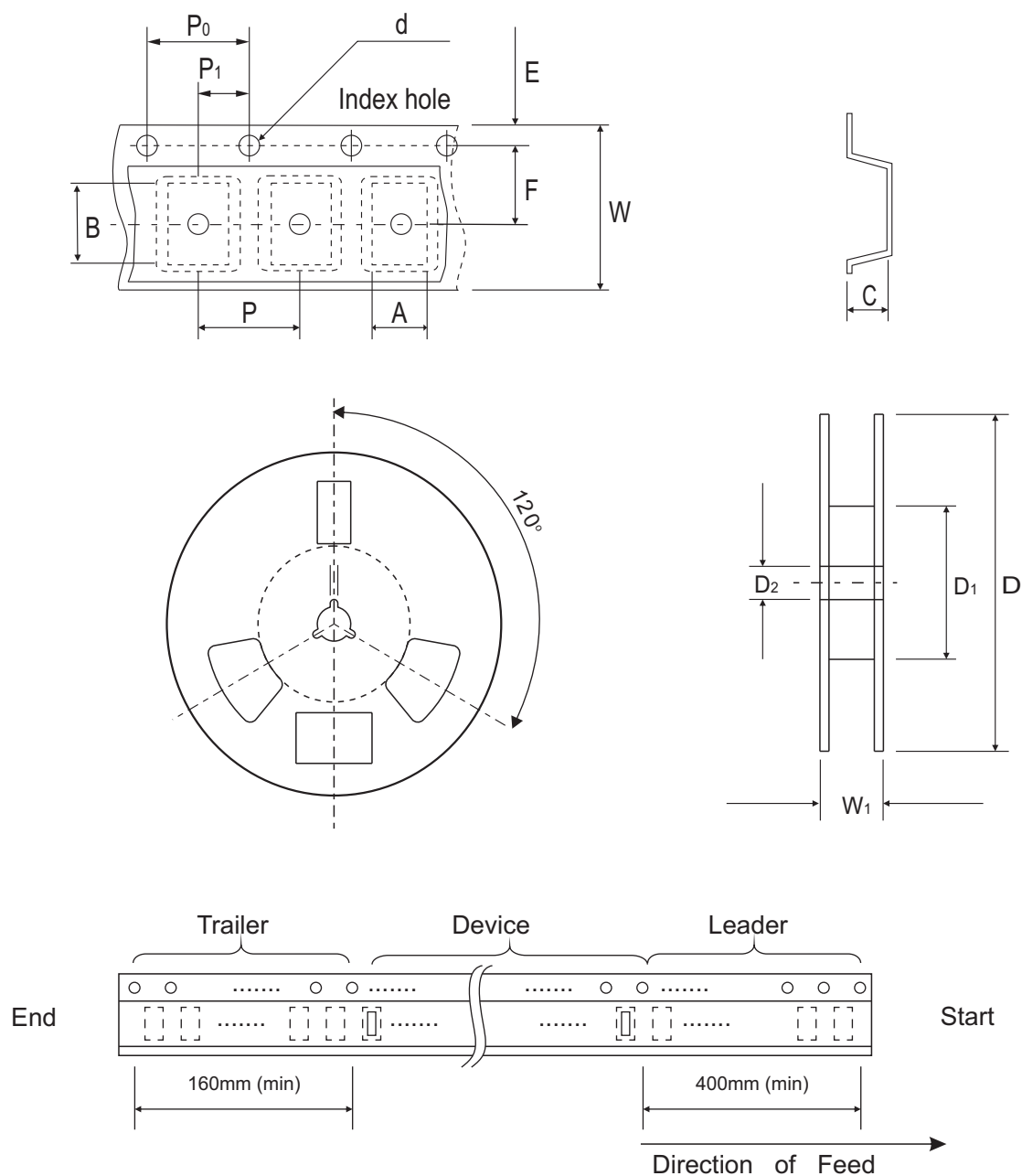


Fig.5 - Typical Junction Capacitance



Reel Taping Specification



SOD-123HT	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.00 ± 0.10	3.85 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	62.00 MIN.	13.00 ± 0.50
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.007 ± 0.079	2.441 MIN.	0.512 ± 0.020

SOD-123HT	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30	11.40 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.10	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 ± 0.012	0.449 ± 0.039

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REV: A

Marking Code

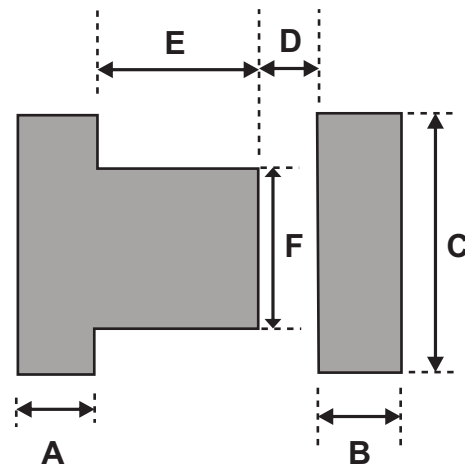
Part Number	Marking Code
ACDBMHT1100-HF	10



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123HT	
	(mm)	(inch)
A	0.90	0.035
B	0.90	0.035
C	1.90	0.075
D	0.70	0.028
E	1.10	0.043
F	1.20	0.047



Note:

1.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123HT	3,000	7