



**THE DATASHEET OF
CDBMH3100-HF**



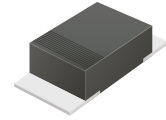
CDBMH320-HF Thru. CDBMH3100-HF

Reverse Voltage: 20 to 100 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free

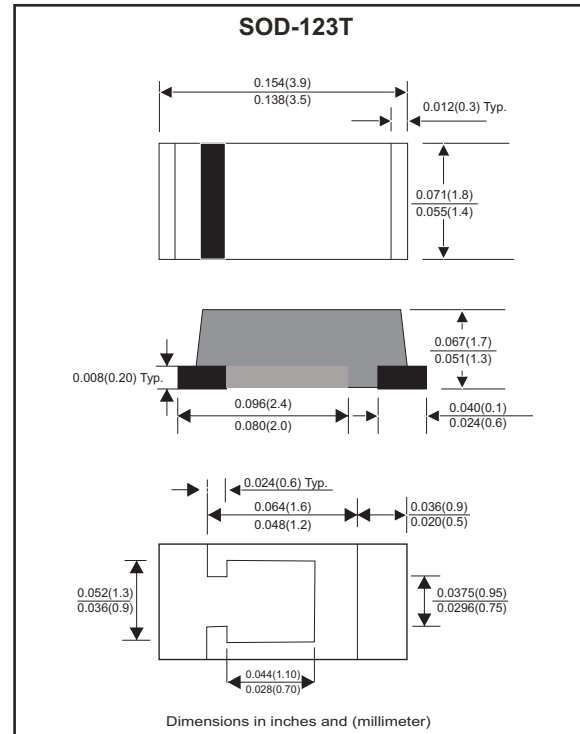


Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500/228

Mechanical data

- Case: Molded plastic, SOD-123T/Mini SMA.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.018 grams approx.



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

Parameter	Symbol	CDBMH 320-HF	CDBMH 330-HF	CDBMH 340-HF	CDBMH 350-HF	CDBMH 360-HF	CDBMH 380-HF	CDBMH 3100-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Continuous reverse voltage	V_R	20	30	40	50	60	80	100	V
RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Max. Forward rectified current	I_o	3.0							A
Maximum forward voltage at $I_F=3.0A$	V_F	0.50			0.70		0.85		V
Max. Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80							A
Max.Reverse current	$V_R=V_{RRM}$ $T_J=25^\circ\text{C}$	I_R							mA
	$V_R=V_{RRM}$ $T_J=100^\circ\text{C}$	20							
Typ. Thermal resistance	$R_{\theta JC}$	30							$^\circ\text{C/W}$
Typ. Diode Junction capacitance (Note 1)	C_J	250							pF
Operating temperature	T_J	-55 to +125			-55 to +150				$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175							$^\circ\text{C}$

Note : 1. $F=1\text{MHz}$ and applied 4V DC reverse voltage

Rating and Characteristic Curves (CDBMH320-HF Thru. CDBMH3100-HF)

Fig.1- Typical Current Derating Curve

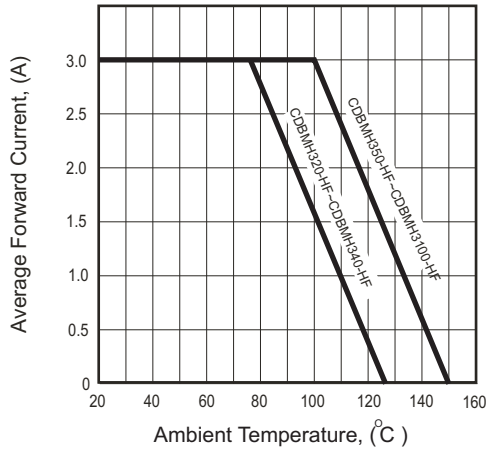


Fig.2 - Typical Forward Characteristics

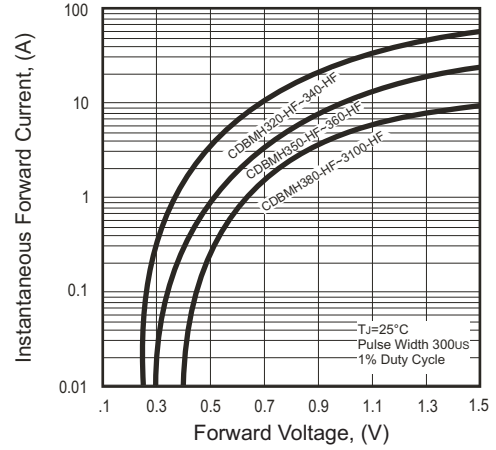


Fig.3 - Maximum Non-repetitive Forward Surge Current

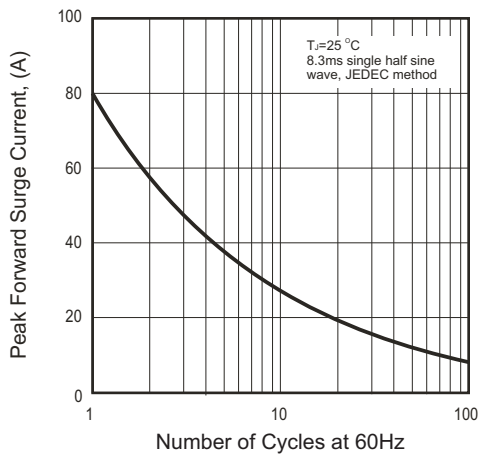


Fig.4 - Typical Junction Capacitance

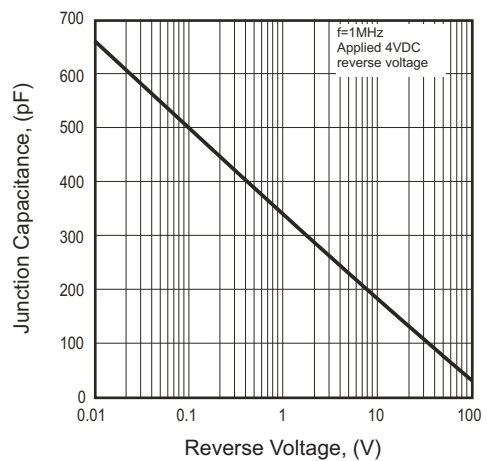
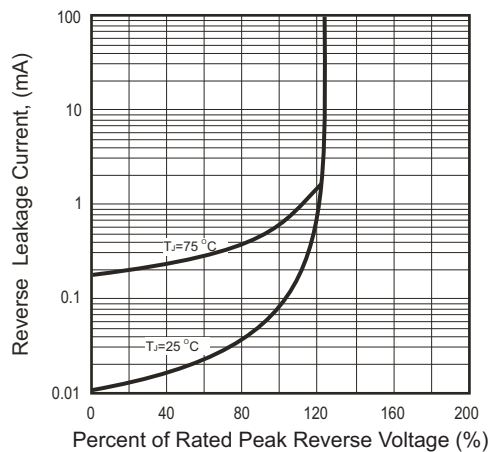
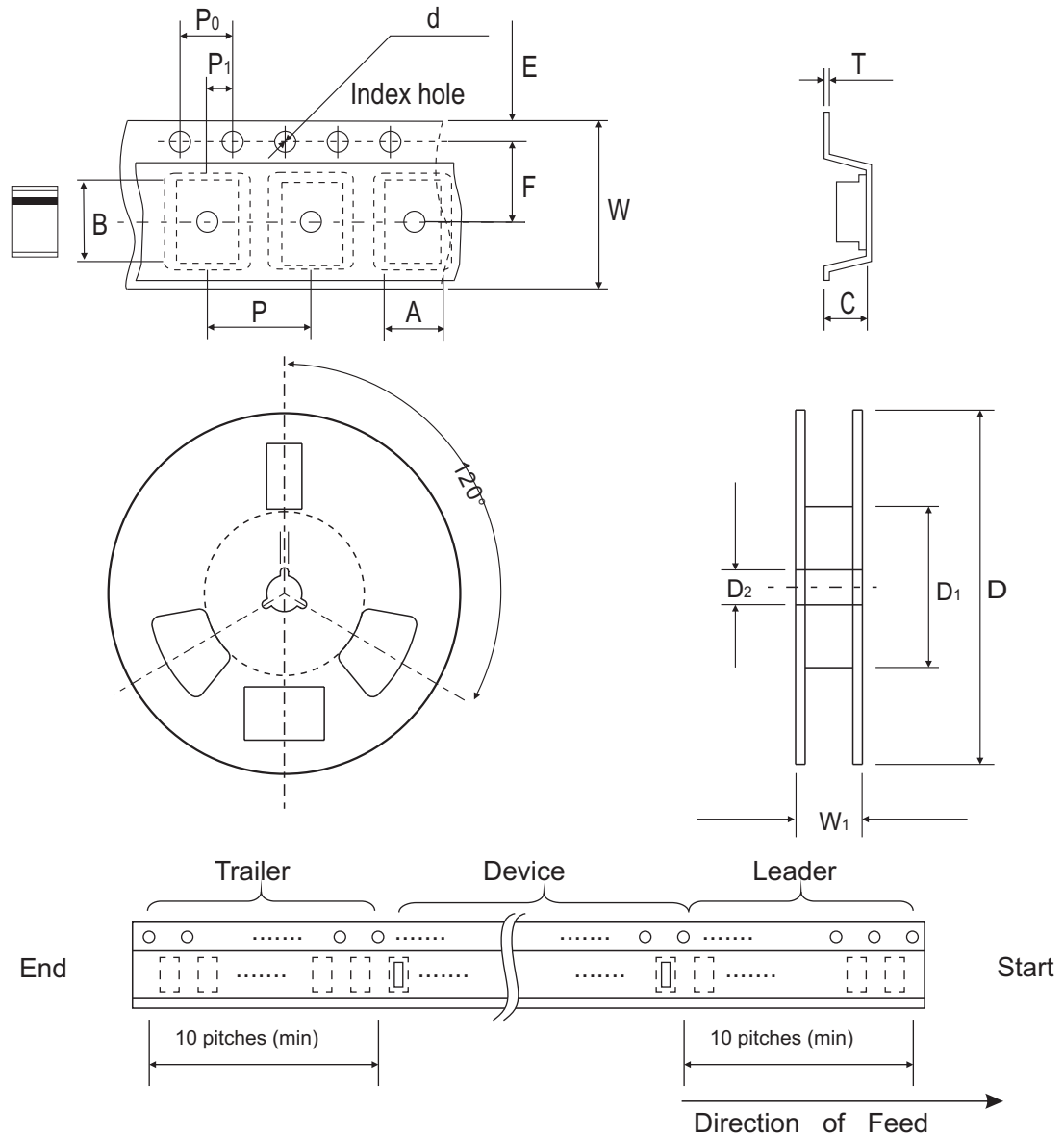


Fig.5 - Typical Reverse Characteristics





Reel Taping Specification



Mini-SMA/SOD-123T	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.90 ± 0.10	3.90 ± 0.10	1.68 ± 0.10	1.50 ± 0.10	178 ± 2.00	62.0 MIN.	13.0 ± 0.50
	(inch)	0.075 ± 0.04	0.153 ± 0.04	0.066 ± 0.04	0.059 ± 0.004	7.00 ± 0.079	2.441 MIN.	0.512 ± 0.020

Mini-SMA/SOD-123T	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	8.00 ± 0.30	11.40 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.315 ± 0.012	0.449 ± 0.039

Pinning information

Pin	Simplified outline	Symbol
PIN 1 Cathode PIN 2 Anode		

Marking Code

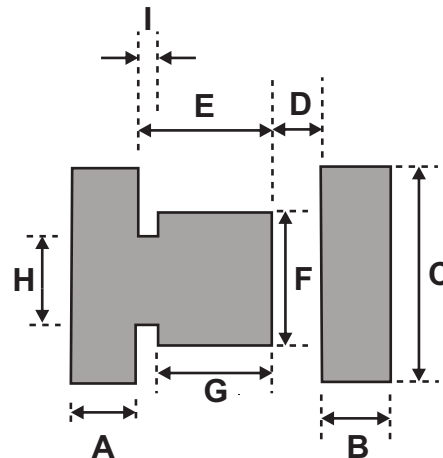
Part Number	Marking Code
CDBMH320-HF	32
CDBMH330-HF	33
CDBMH340-HF	34
CDBMH350-HF	35
CDBMH360-HF	36
CDBMH380-HF	38
CDBMH3100-HF	310



xx / xxx = Product type marking code

Suggested PAD Layout

SIZE	Mini-SMA/SOD-123T	
	(mm)	(inch)
A	1.00	0.040
B	1.00	0.040
C	1.70	0.067
D	0.50	0.020
E	1.50	0.060
F	1.10	0.044
G	0.90	0.036
H	0.85	0.034
I	0.60	0.024



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
Mini-SMA/SOD-123T	2500	7

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View CDBMH3100-HF on WIN SOURCE](#)
- ⊖ [Comchip Technology Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management