

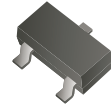
CDBH3-00340-HF

Reverse Voltage: 40V

Forward Current: 30mA

RoHS Device

Halogen Free



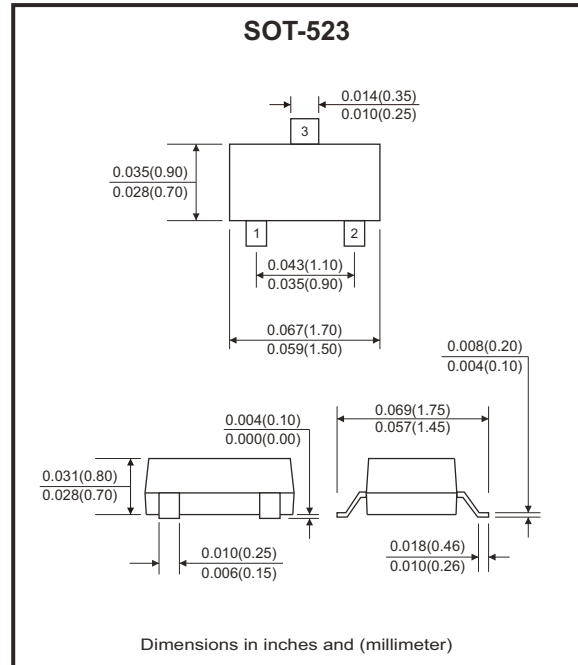
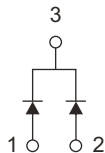
Features

- Extra small power mold type.
- Low V_F .
- High reliability.

Mechanical data

- Case: SOT-523, molded plastic.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	40	V
DC reverse voltage	V_R	40	V
Non-repetitive peak forward surge current @ $t=8.3\text{ms}$	I_{FSM}	200	mA
Average forward current	I_o	30	mA
Power dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Junction temperature	T_J	125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse voltage leakage current	I_R	$V_R=10\text{V}$			1	μA
Forward voltage	V_F	$I_F=1\text{mA}$			0.37	V
Capacitance between terminals	C_T	$V_R=1\text{V}, f=1\text{MHz}$		2		pF

Rating and Characteristic Curves (CDBH3-00340-HF)

Fig.1 - Forward Characteristics

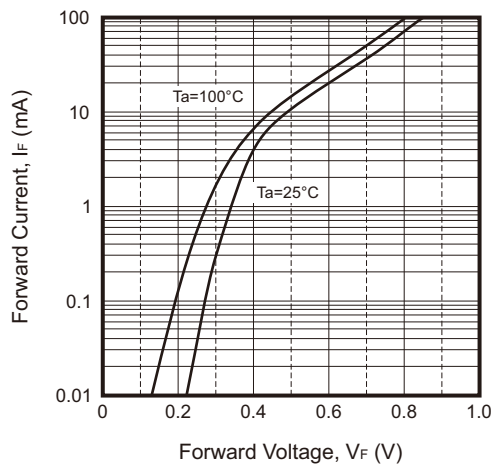


Fig.2 - Reverse Characteristics

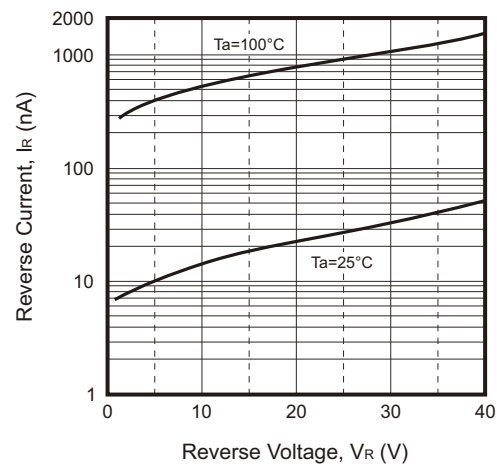


Fig.3 - Capacitance Characteristics

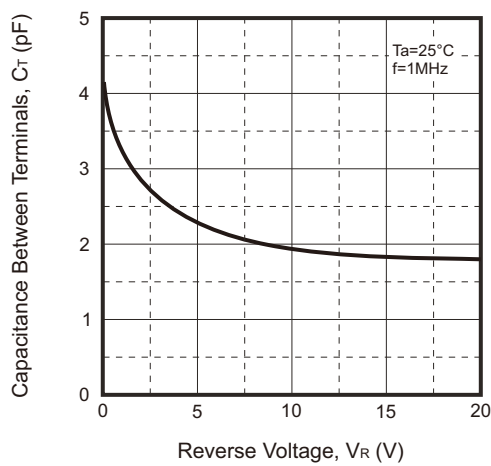
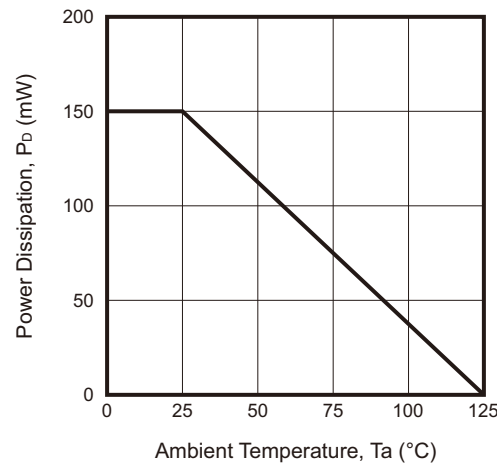
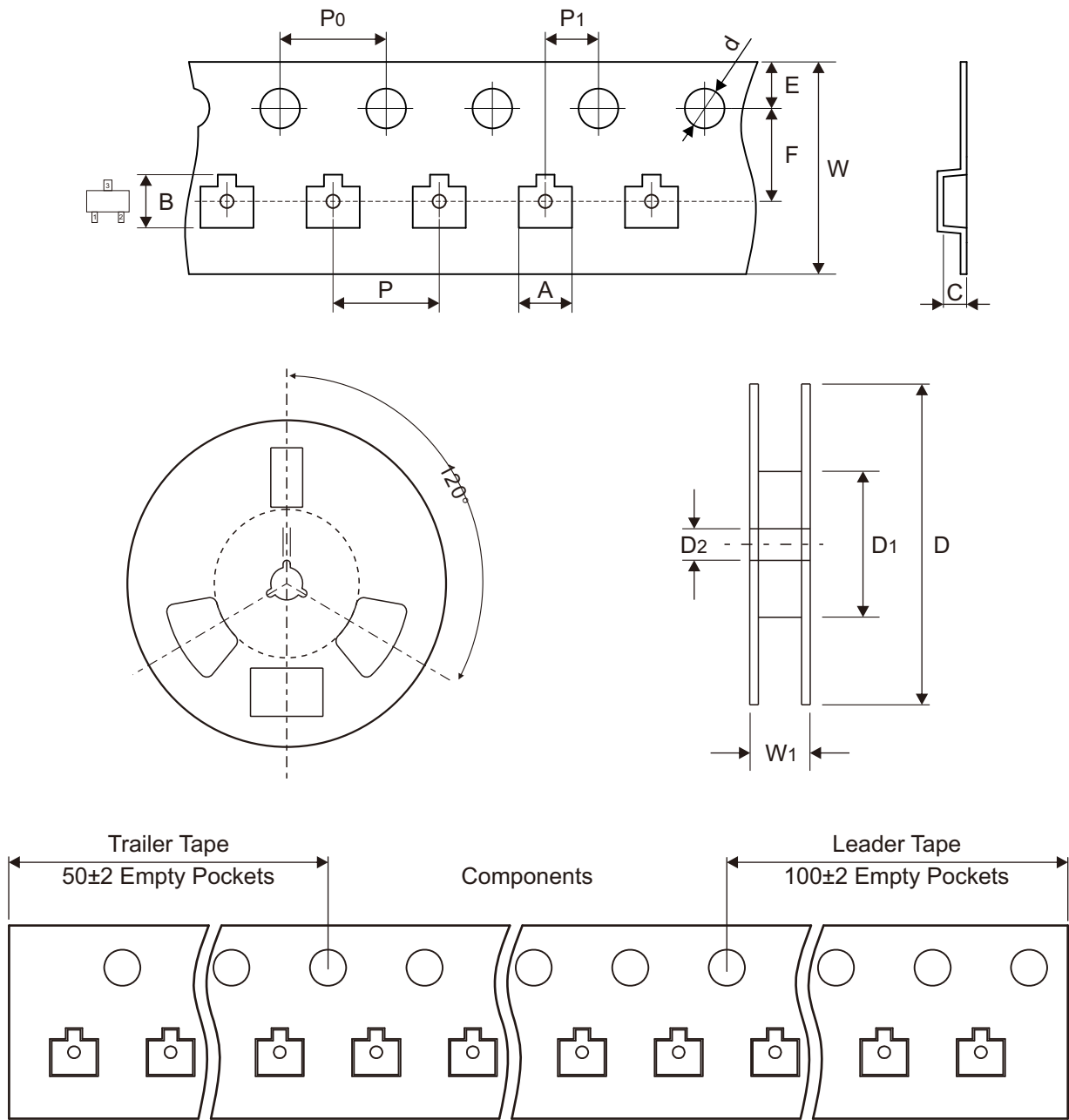


Fig.4 - Power Derating Curve



Reel Taping Specification

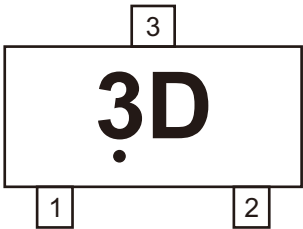


SOT-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.05	1.85 ± 0.05	0.875 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.073 ± 0.002	0.034 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(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 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

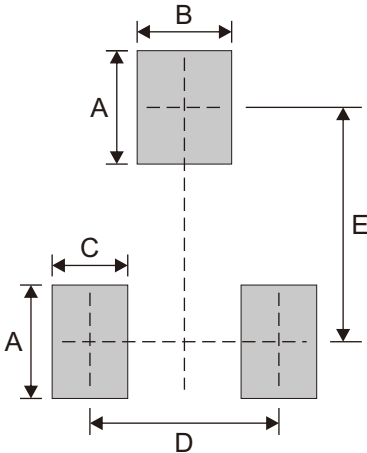
Part Number	Marking Code
CDBH3-00340-HF	3D



Solid dot = Halogen Free

Suggested PAD Layout

SIZE	SOT-523	
	(mm)	(inch)
A	0.60	0.024
B	0.50	0.020
C	0.40	0.016
D	1.00	0.039
E	1.24	0.049



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-523	3,000	7