

CDBVFHT140-HF

Reverse Voltage: 40 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen free

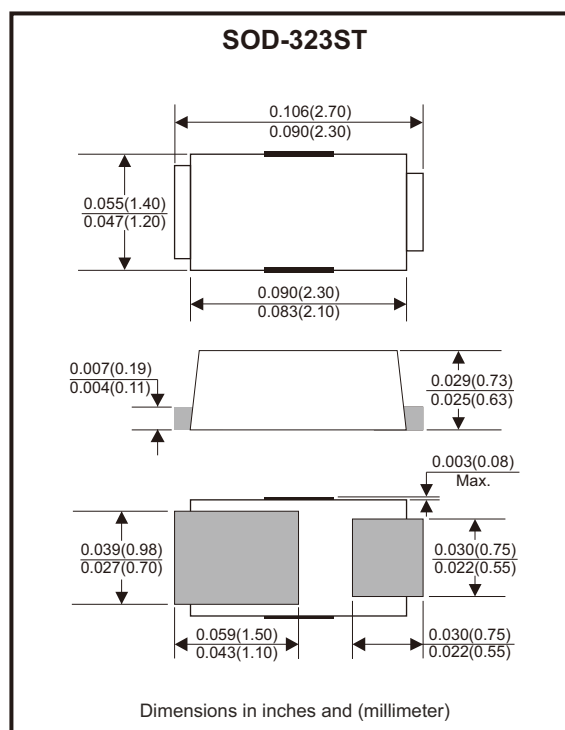
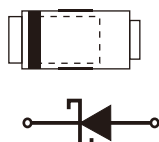
Features

- Low profile package.
- Low forward voltage drop.
- Low reverse current.
- High Efficiency.

Mechanical data

- Case: SOD-323ST, molded plastic.
- Terminals: Solderable per MIL-STD-750, Method 2026.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Recurrent peak reverse voltage	V_{RRM}	40	V
RMS voltage	V_{RMS}	28	V
DC blocking voltage	V_R	40	V
Average forward current	I_o	1.0	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	22	A
Operating junction temperature range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-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
Instantaneous forward voltage	$I_F = 1.0\text{A}$	V_F		0.40	0.45	V
Reverse current	$V_R = 40\text{V}$	I_R			200	μA
Typical thermal resistance	Junction to ambient (Note 1)	$R_{\theta JA}$		220		$^{\circ}\text{C/W}$
	Junction to lead (Note 1)	$R_{\theta JL}$		50		

Note: 1. Mounted on P.C Board with (50mm x 50mm) copper pad areas.

RATING AND CHARACTERISTIC CURVES (CDBVFHT140-HF)

Fig.1 - Typical Forward Current Derating Curve

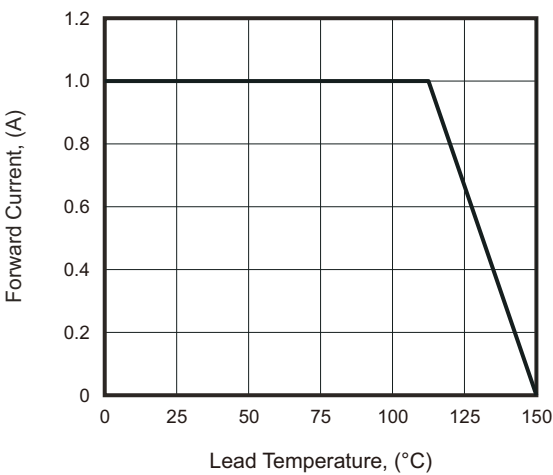


Fig.2 - Typical Junction Capacitance

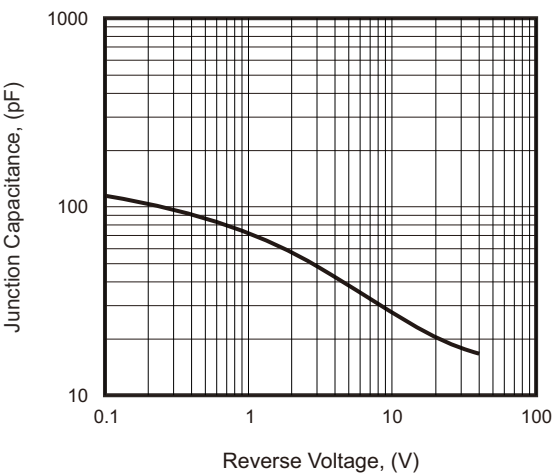
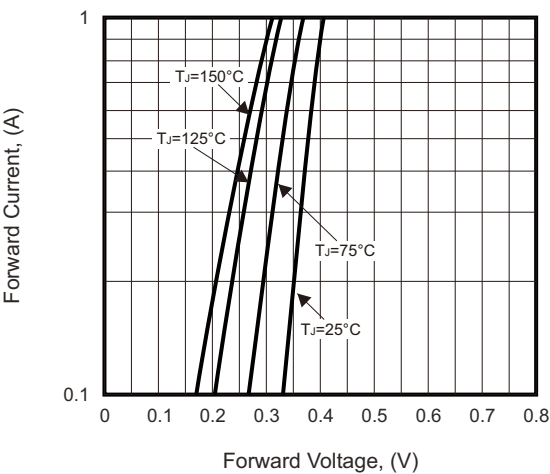
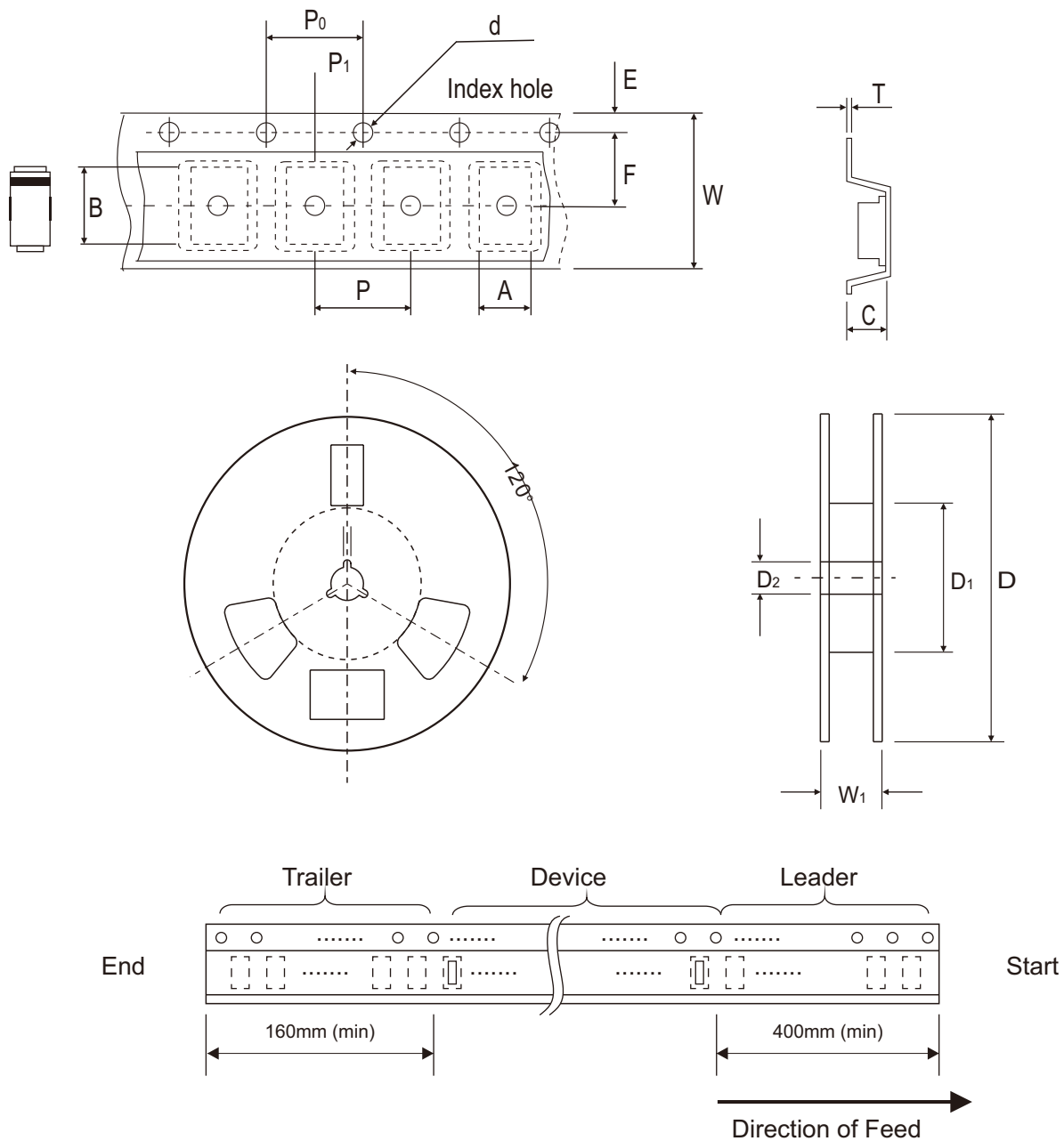


Fig.3 - Typical Forward Characteristics



Reel Taping Specification



SOD-123ST	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.00 ± 0.10	3.85 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	50.00 ± 1.00	13.00 ± 1.00
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 ± 0.039	0.512 ± 0.039

SOD-123ST	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 ± 1.30
	(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

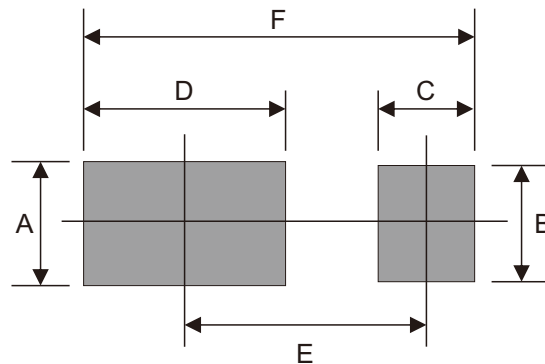
Marking Code

Part Number	Marking Code
CDBVFHT140-HF	E4



Suggested PAD Layout

SIZE	SOD-323ST	
	(mm)	(inch)
A	1.10	0.043
B	1.00	0.039
C	0.90	0.035
D	1.85	0.073
E	1.825	0.072
F	3.20	0.126



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323ST	3,000	7