

CDBVFHT240-HF

Reverse Voltage: 40 Volts
Forward Current: 2.0 Amp
RoHS Device
Halogen Free

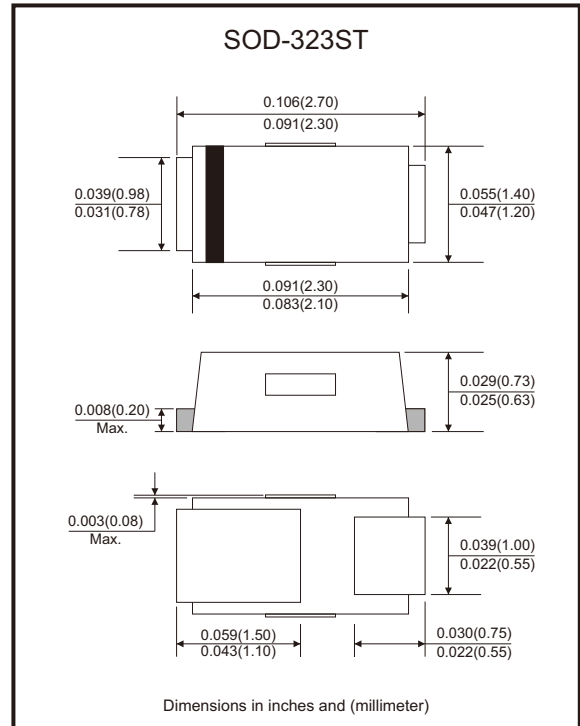
Features

- Ultra small surface mount package.
- Low forward voltage drop.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant.
- Case: Molded plastic, SOD-323ST.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.

Circuit Diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Working peak reverse voltage		V_{RWM}	40	V
Forward rectified current		I_o	2	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30	A
Peak repetitive reverse surge current	2 μ s - 1kHz	I_{RRM}	1	A
Typical thermal resistance	Junction to ambient	$R_{\theta JA}$	700	°C/W
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage drop	$I_F = 1A, T_J = 25^\circ C$	V_F		380		mV
	$I_F = 2A, T_J = 25^\circ C$			440	500	
	$I_F = 2A, T_J = 125^\circ C$			380		
Reverse current	$V_R = 40V, T_J = 25^\circ C$	I_R		0.02	0.1	mA
	$V_R = 40V, T_J = 125^\circ C$			6	20	
Reverse breakdown voltage	$I_R = 0.5mA, T_J = 25^\circ C$	V_{BR}	40			V

Rating and Characteristic Curves (CDBVFHT240-HF)

Fig.1 - Forward Characteristics

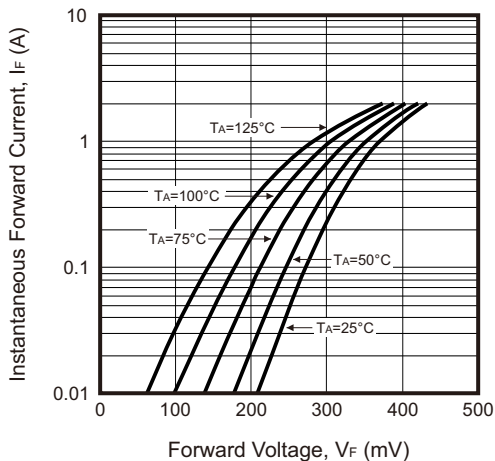


Fig.2 - Reverse Characteristics

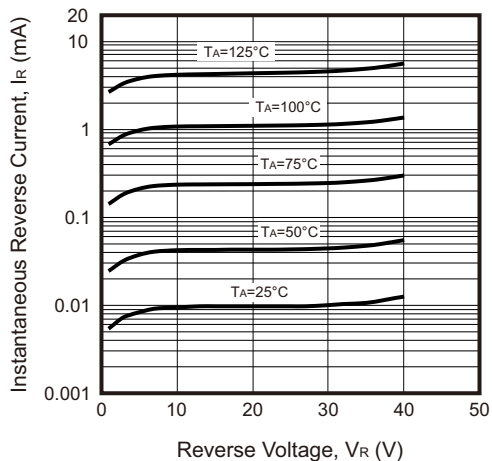


Fig.3 - Forward Power Dissipation

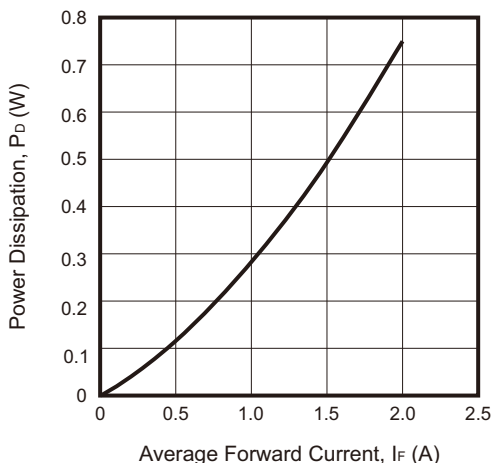


Fig.4 - Forward Current Derating Curve

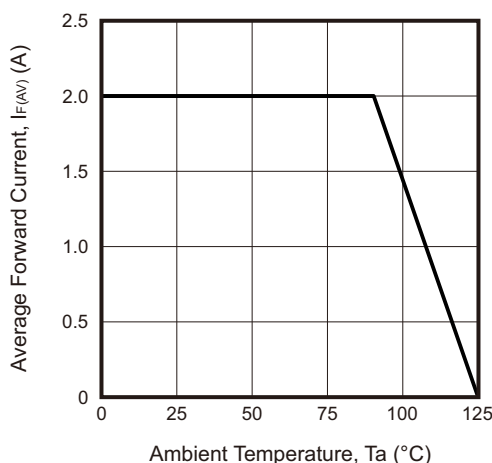
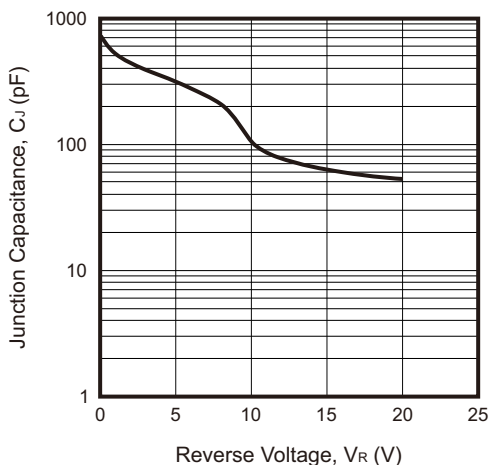
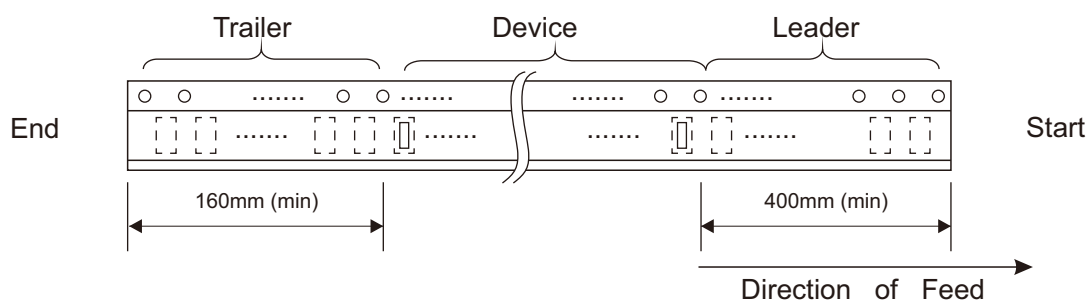
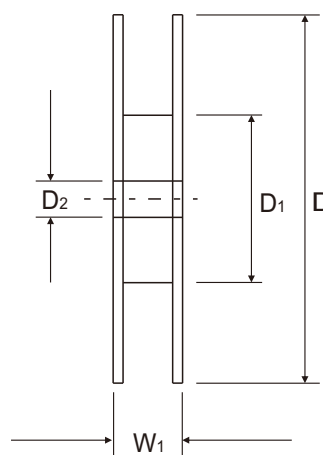
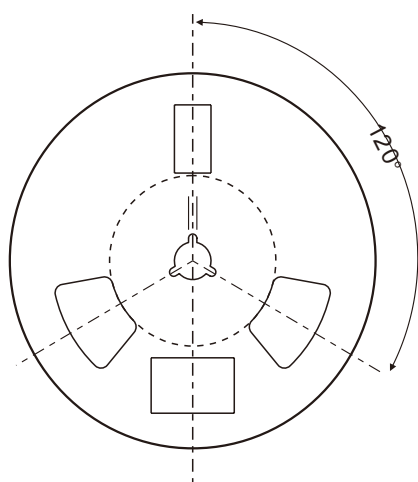
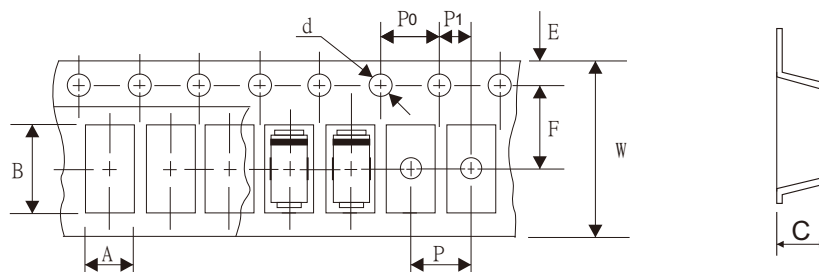


Fig.5 - Junction Capacitance



Reel Taping Specification



SOD-323ST	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.60 ± 0.10	2.80 ± 0.10	0.95 ± 0.10	1.50 ± 0.10	178.00 ± 0.30	50.00 Min.	13.00 ± 0.20
	(inch)	0.063 ± 0.004	0.110 ± 0.004	0.037 ± 0.004	0.059 ± 0.004	7.008 ± 0.012	1.969 Min.	0.512 ± 0.008

SOD-323ST	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 ± 0.05	8.00 ± 0.30	11.40 Min.
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012	0.449 Min.

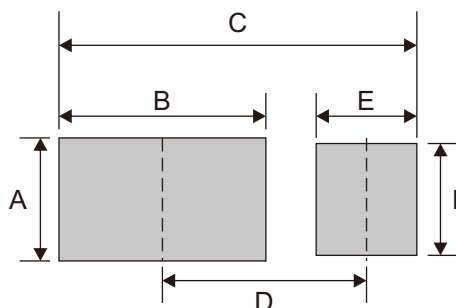
Marking Code

Part Number	Marking Code
CDBVFHT240-HF	C24



Suggested P.C.B. PAD Layout

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



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

Standard Packaging

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