

## CDBVFHT240-HF

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

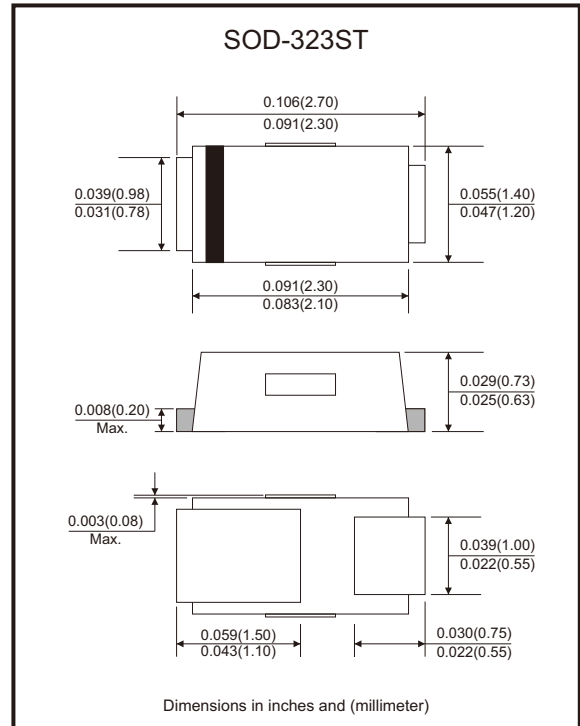
### Features

- 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 $\mu$ 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

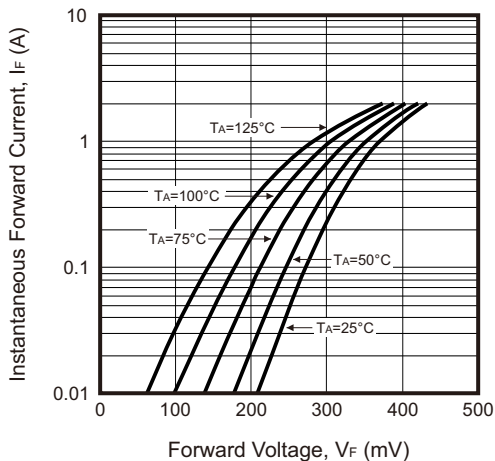


Fig.2 - Reverse Characteristics

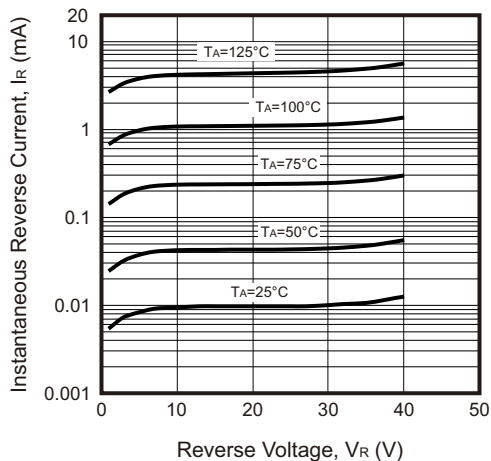


Fig.3 - Forward Power Dissipation

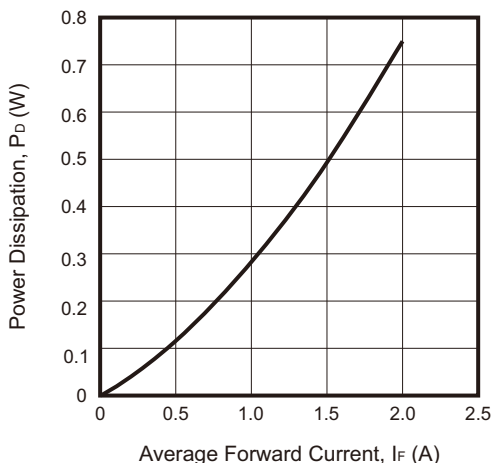


Fig.4 - Forward Current Derating Curve

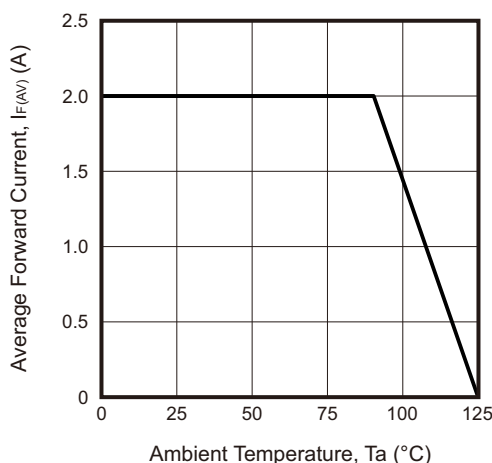
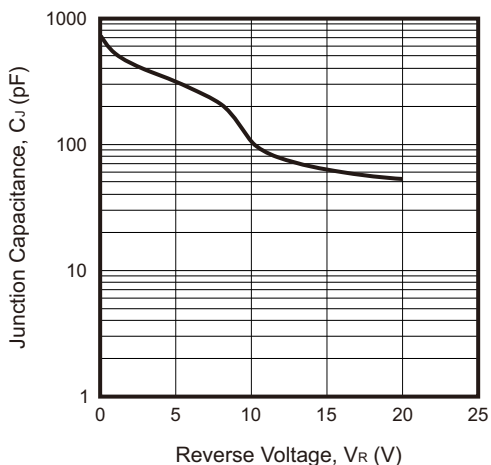
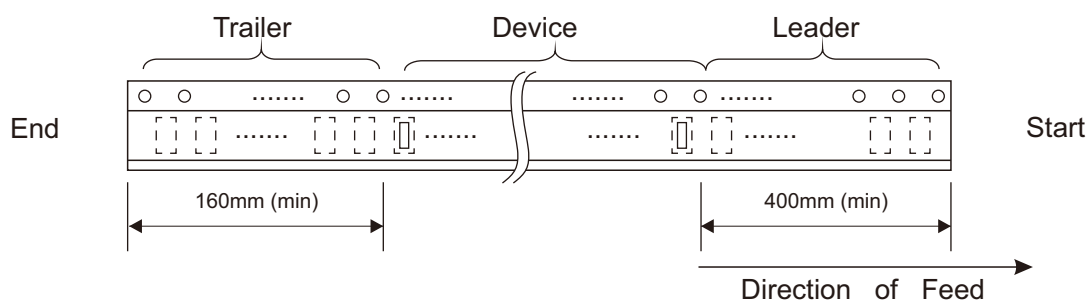
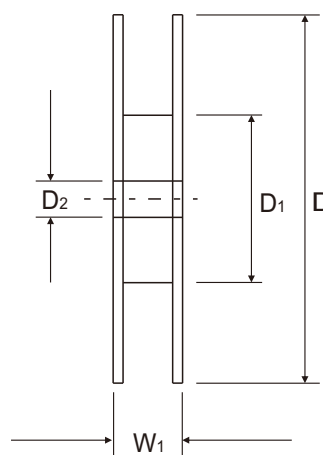
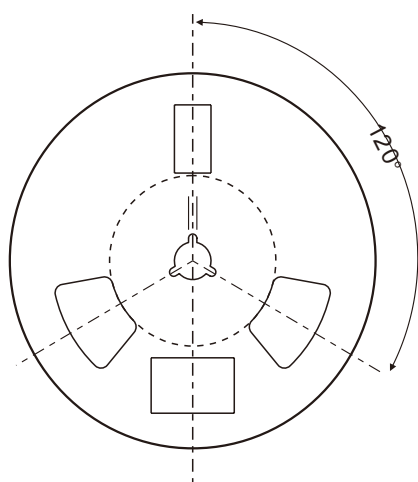
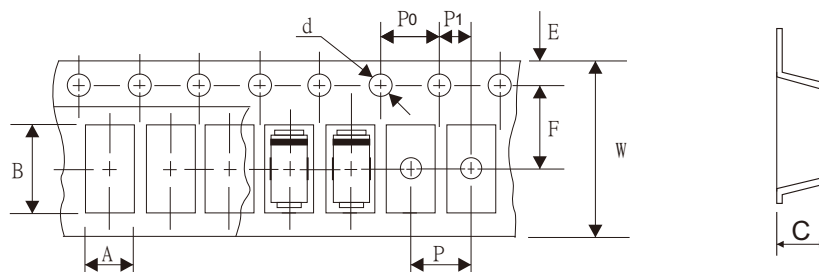


Fig.5 - Junction Capacitance



## 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.