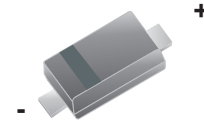


## CDBH0230-G

**Reverse Voltage: 30 Volts**  
**Forward Current: 200 mA**  
**RoHS Device**

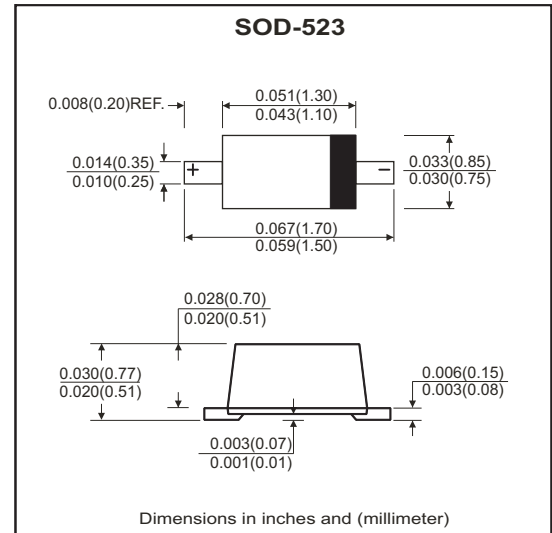


### Features

- Extremely fast switching speed.
- Small surface mount type.
- Low reverse current and low forward voltage.

### Mechanical data

- Case: SOD-523 standard package, Molded Plastic
- Terminals: Solderable per MIL-STD-750, method 2026
- Marking code: cathode band & JV
- Mounting position: Any
- Weight: 0.012 gram(approx.)



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

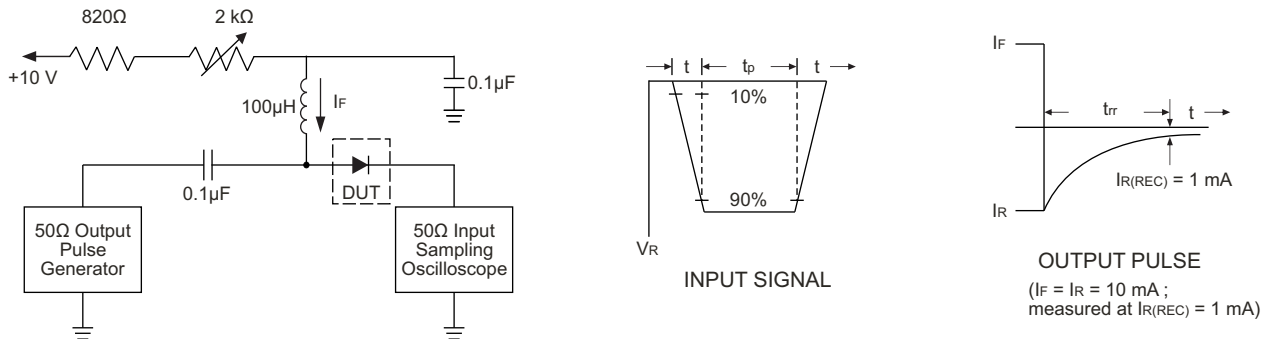
Parameter	Symbol	CDBH0230-G	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	30	V
RMS voltage	$V_{RMS}$	21	V
DC blocking voltage	$V_{DC}$	30	V
Average rectified output current	$I_o$	100	mA
Forward continuous current	$I_F$	200	mA
Repetitive peak forward current	$I_{FRM}$	300	mA
Forward surge current	$I_{FSM}$	600	mA
Power dissipation	$P_D$	200	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction temperature	$T_J$	125	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$	30	-----	-----	V
Forward voltage	$V_{F1}$	$I_F=0.1\text{mA}$	-----	-----	240	mV
	$V_{F2}$	$I_F=1.0\text{mA}$	-----	-----	320	mV
	$V_{F3}$	$I_F=10\text{mA}$	-----	-----	400	mV
	$V_{F4}$	$I_F=30\text{mA}$	-----	-----	500	mV
	$V_{F5}$	$I_F=100\text{mA}$	-----	-----	1000	mV
Reverse current	$I_R$	$V_R=25\text{V}$	-----	-----	2.0	$\mu\text{A}$
Capacitance between terminals	$C_T$	$V_R=1\text{V}, f=1.0\text{MHz}$	-----	-----	10	pF
Reverse recovery time	$t_{rr}$	$I_F=10\text{mA}, I_R=10\text{mA to } 1\text{mA}$ $R_L=100\Omega$	-----	-----	5.0	nS

## Rating and Characteristic Curves (CDBH0230-G)

Fig.1- Recovery Time Equivalent Test Circuit



- Notes:
1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10 mA.
  2. Input pulse is adjusted so  $I_{R(peak)}$  is equal to 10 mA.
  3.  $t_p \gg t_{rr}$

Fig.2 - Typical Forward Characteristics

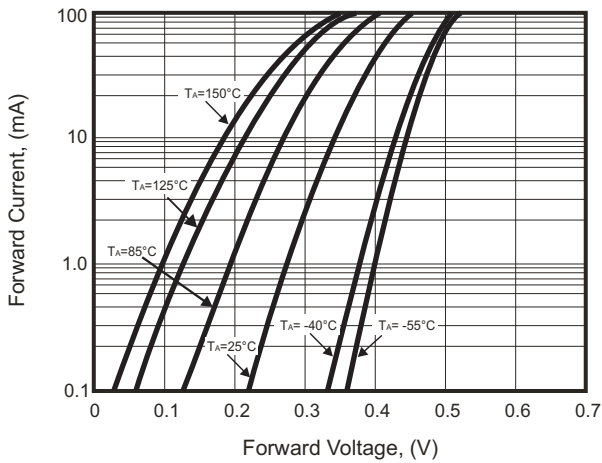


Fig.3 - Leakage Current

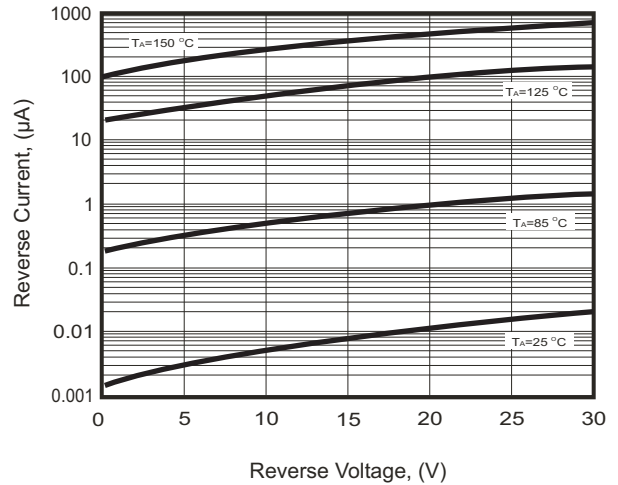
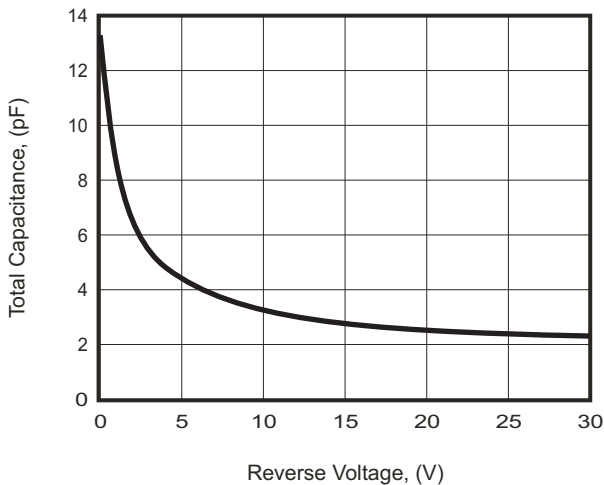
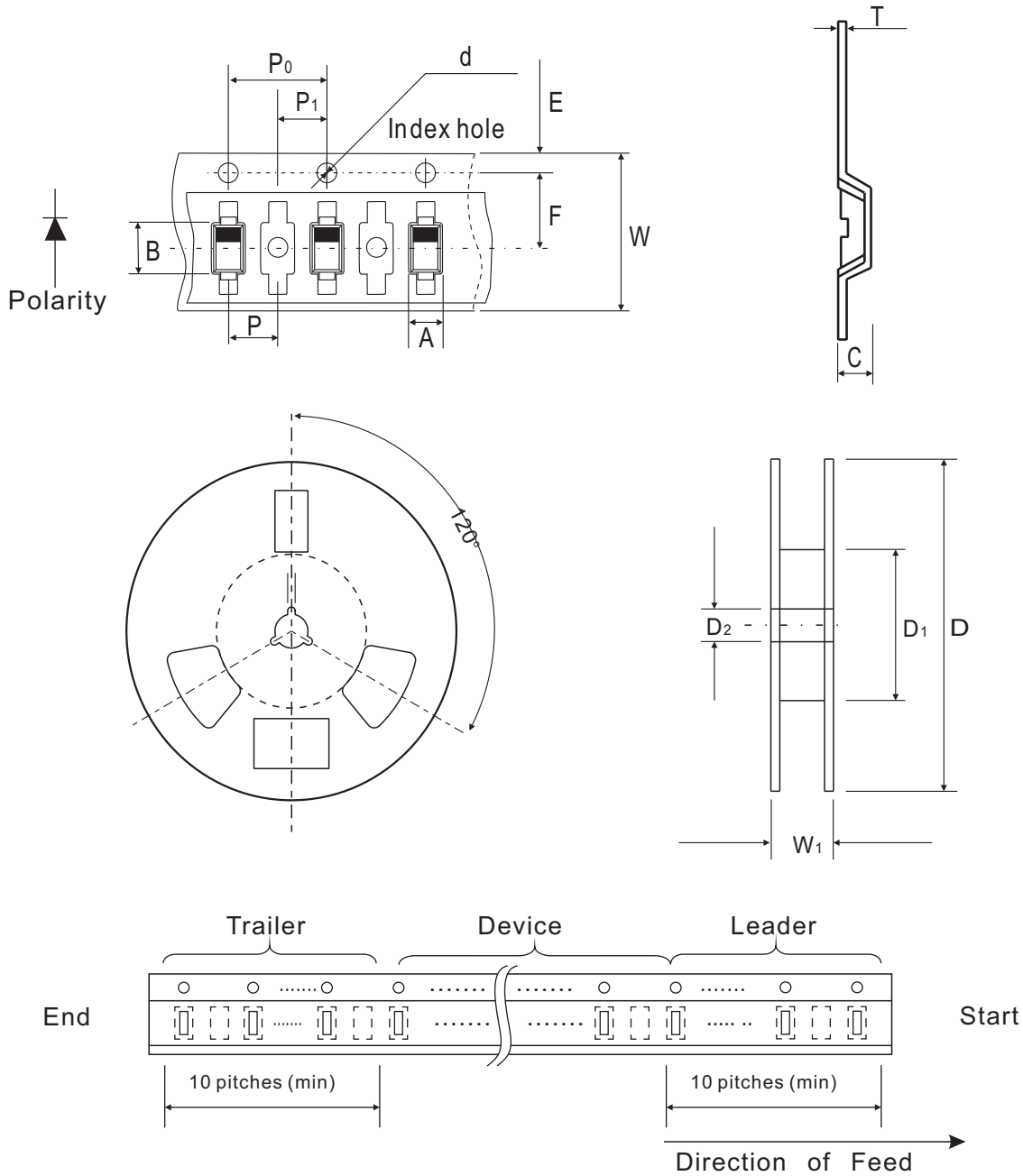


Fig.4 - Total Capacitance



## Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.90 ± 0.10	1.94 ± 0.10	0.73 ± 0.10	1.50 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.035 ± 0.004	0.076 ± 0.004	0.029 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-523	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30 / - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 ± 0.012 / - 0.004	0.374 ± 0.039

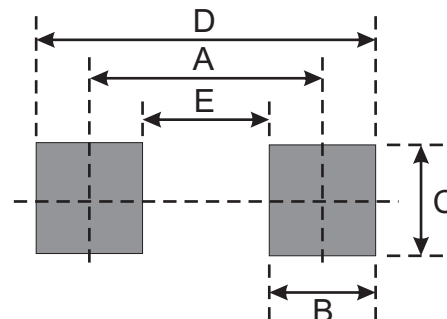
## Marking Code

Part Number	Marking Code
CDBH0230-G	JV



## Suggested PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.60	0.024
C	0.70	0.028
D	2.00	0.079
E	0.80	0.031



## Standard Packaging

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