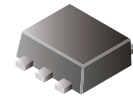


## CDBH5-480V-G

$I_o = 100\text{mA}$

$V_R = 40\text{V}$

RoHS Device

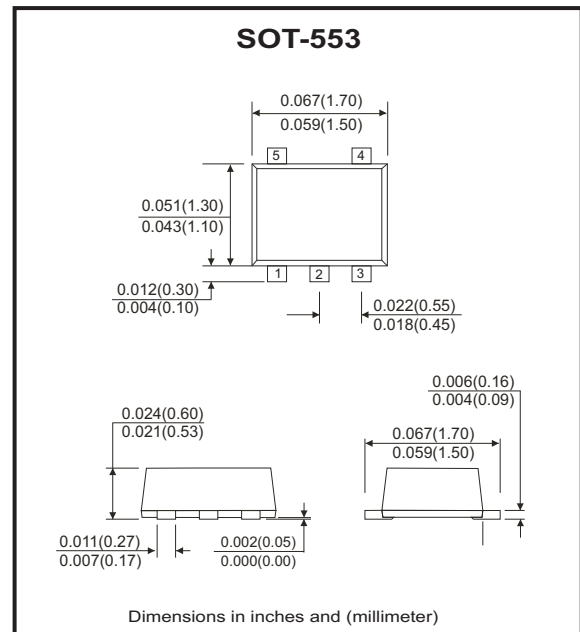


### Features

- Low current rectification.
- High reliability.
- Designed for mounting on small surface.
- Extremely thin package.
- Majority carrier conduction.

### Mechanical data

- Case: SOT-553 standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any
- Weight: 0.0031 grams(approx.).



### Circuit diagram



### Maximum Ratings and Electrical characteristics, Single Diode

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

Parameter	Conditions	Symbol	Value	Unit
Peak reverse voltage		$V_{RM}$	45	V
DC reverse voltage		$V_R$	40	V
Mean rectifying current		$I_o$	0.1	A
Non-repetitive peak forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	1	A
Power dissipation		$P_D$	150	mW
Thermal resistance junction to ambient		$R_{\theta JA}$	667	$^\circ\text{C}/\text{W}$
Junction temperature range		$T_j$	-40~+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	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F = 10\text{mA}$	$V_F$			450	mV
	$I_F = 100\text{mA}$				600	
Reverse current	$V_R = 10\text{V}$	$I_R$			1	$\mu\text{A}$
	$V_R = 40\text{V}$				5	
Capacitance between terminals	$V_R = 0\text{V}$	$C_T$			25	pF
	$V_R = 10\text{V}, f=1\text{MHz}$				6	

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

## RATING AND TYPICAL CHARACTERISTIC CURVES (CDBH5-480V-G)

Fig.1 - Forward Characteristics

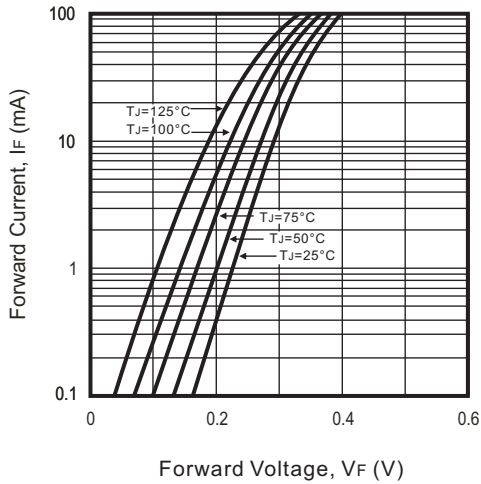


Fig.2 - Reverse Characteristics

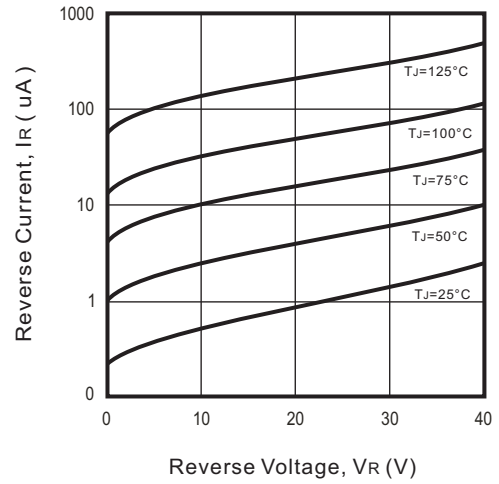


Fig.3 - Capacitance Characteristics per Diode

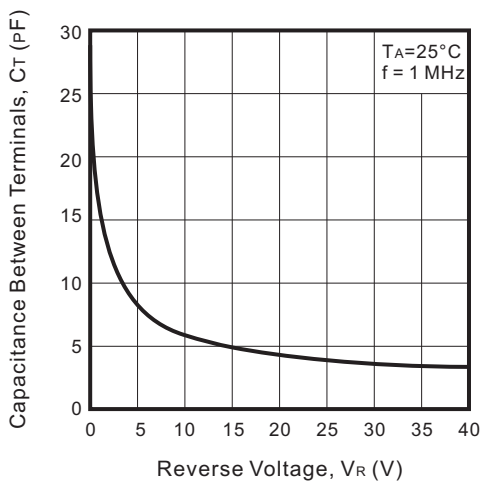
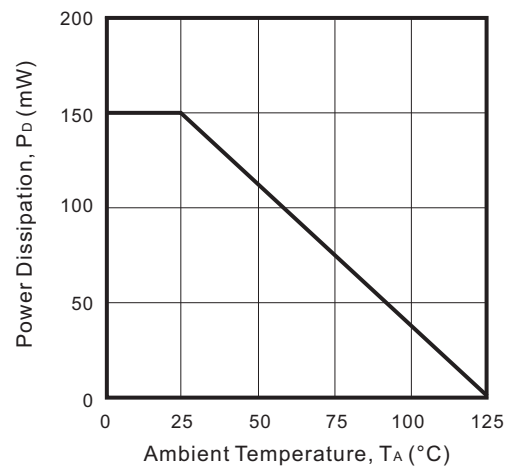
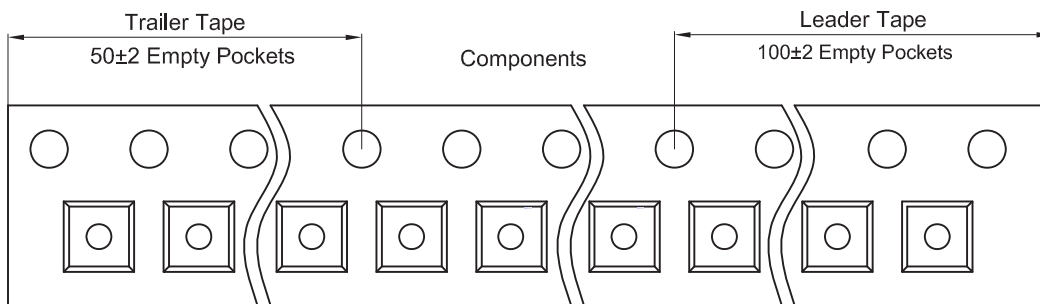
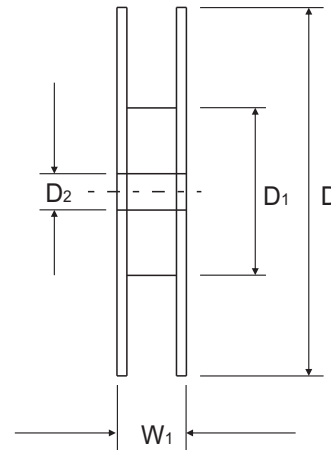
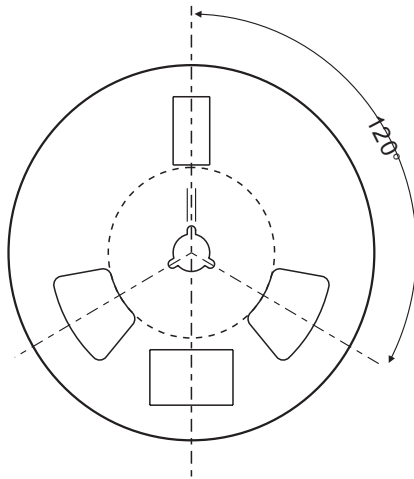
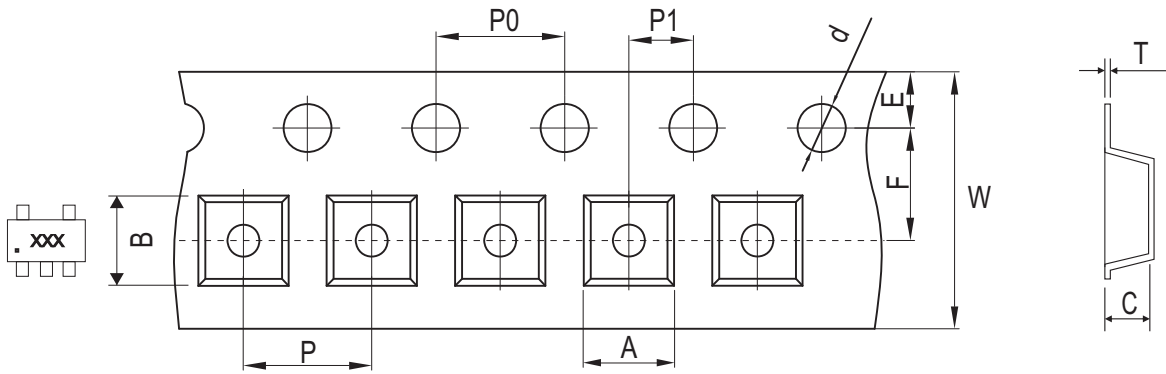


Fig.4 - Power Derating Curve



## Reel Taping Specification



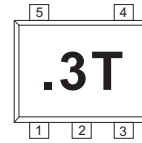
SOT-553	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.78 ± 0.10	1.78 ± 0.10	0.69 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.070 ± 0.004	0.070 ± 0.004	0.027 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.040	0.512 ± 0.039

SOT-553	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 ± 0.004	0.567 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

## Marking Code

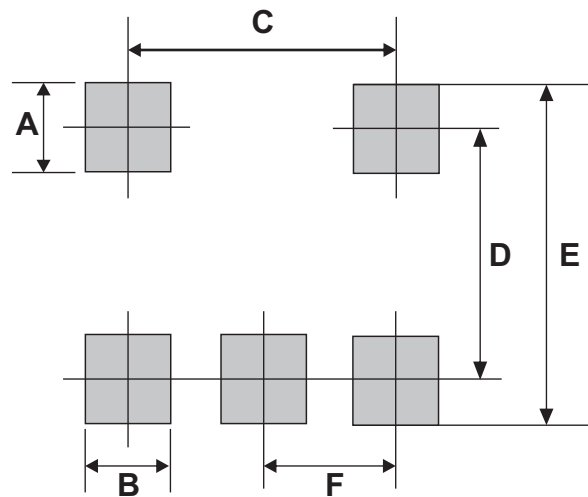
Part Number	Marking Code
CDBH5-480V-G	. 3T



3T = Product type marking code  
Solid dot = Pin 1 indicate

## Suggested PAD Layout

SIZE	SOT-553	
	(mm)	(inch)
A	0.30	0.012
B	0.30	0.012
C	1.00	0.039
D	1.40	0.055
E	1.70	0.067
F	0.50	0.020



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-553	3,000	7