

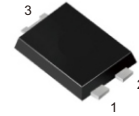
CDBHA10100L-HF

Reverse Voltage: 100V

Forward Current: 10A

RoHS Device

Halogen Free



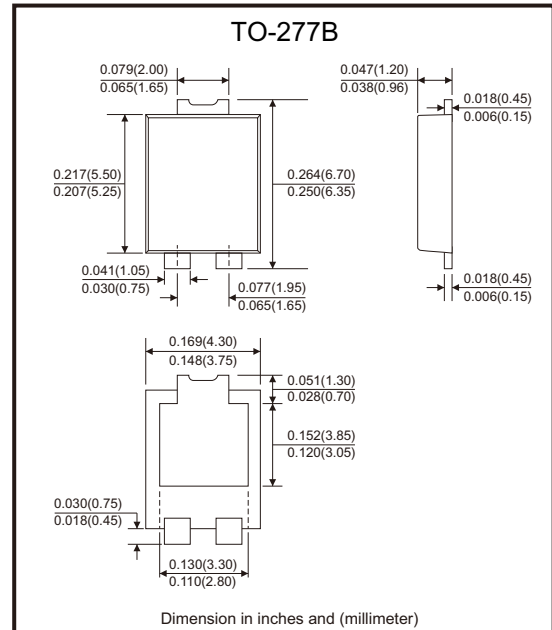
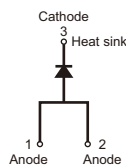
Features

- Metal silicon junction, majority carrier conduction.
- High current capability.
- Low forward voltage drop.
- High surge capability.

Mechanical data

- Case: TO-277B, molded plastic.
- Terminals: Solderable per MIL-STD-202, method 208.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	100	V
RMS reverse voltage	V_{RMS}	70	V
DC blocking voltage	V_{DC}	100	V
Maximum average forward output current	I_o	10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	130	A
Operating junction temperature range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Typical thermal resistance from junction to lead	$R_{\theta JL}$		19		$^{\circ}\text{C/W}$

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage (Note 1)	$I_F = 10\text{A}$	V_F		0.64	0.67	V
	$I_F = 5\text{A}$	V_F		0.52		
	$I_F = 3\text{A}$	V_F		0.47		
Maximum DC reverse current at rated DC blocking voltage	$T_J = 25^{\circ}\text{C}$	I_R			0.5	mA
	$T_J = 125^{\circ}\text{C}$	I_R			5	

Notes: 1. Mounted on 30mm x 30mm aluminum PCB.

Typical Rating and Characteristics Curves (CDBHA10100L-HF)

Fig.1 - Forward Current Derating Curve

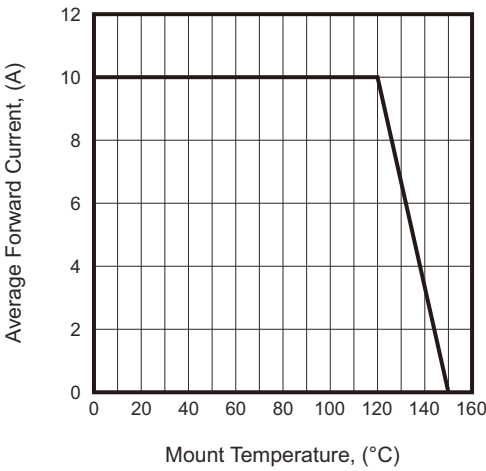


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

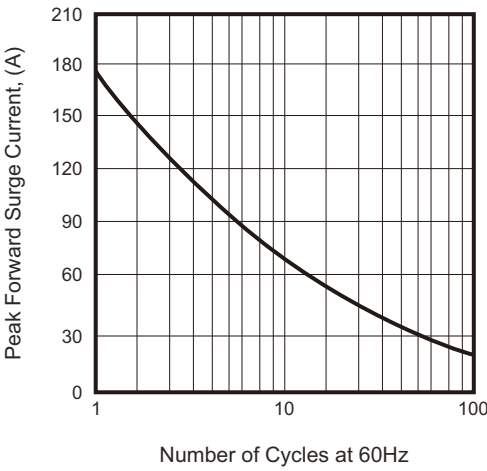


Fig.3 - Typical Instantaneous Forward Characteristics

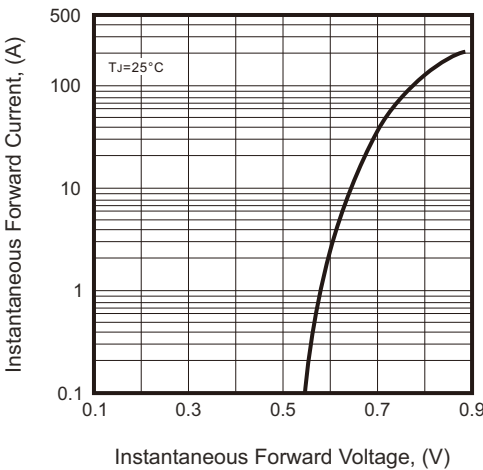
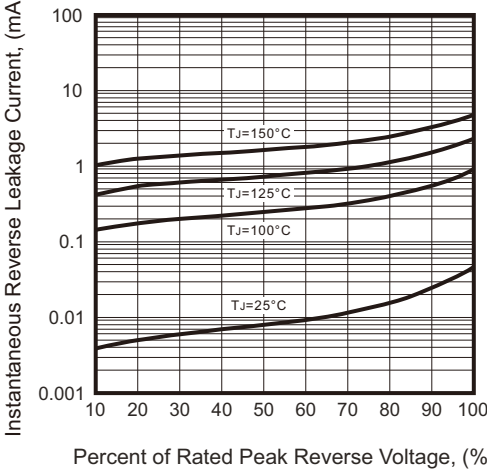
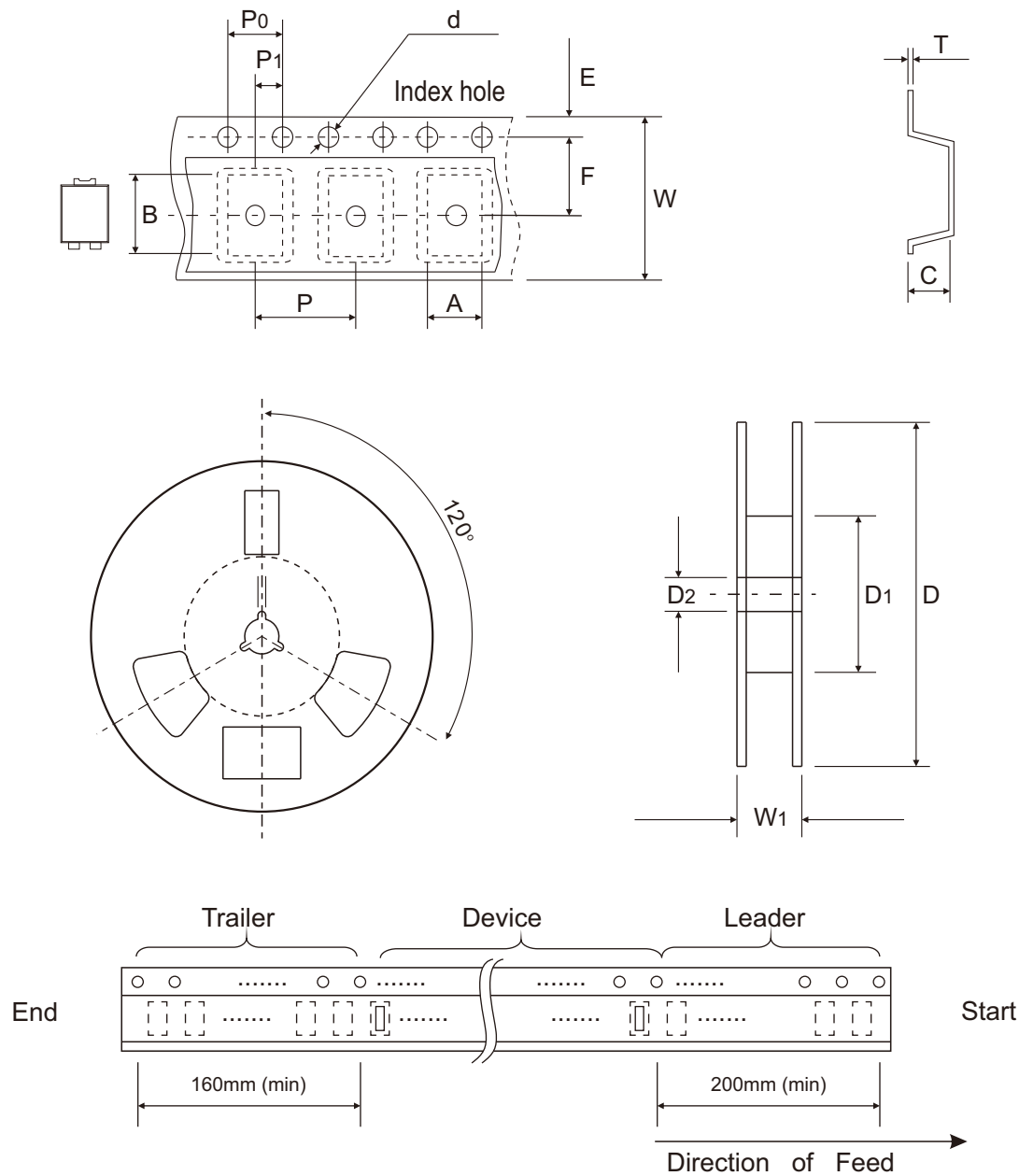


Fig.4 - Typical Reverse Leakage Characteristics



Reel Taping Specification



TO-277B	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.50 ± 0.20	6.80 ± 0.20	1.35 ± 0.10	1.55 ± 0.10	333.00 ± 4.00	100.00 ± 0.10	13.00 ± 0.40
	(inch)	0.177 ± 0.008	0.268 ± 0.008	0.053 ± 0.004	0.061 ± 0.004	13.110 ± 0.157	3.937 ± 0.004	0.512 ± 0.016

TO-277B	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.20	5.50 ± 0.10	8.00 ± 0.20	4.00 ± 0.20	2.00 ± 0.20	0.23 ± 0.05	12.00 ± 0.30	17.00 ± 4.00
	(inch)	0.069 ± 0.008	0.217 ± 0.004	0.315 ± 0.008	0.157 ± 0.008	0.079 ± 0.008	0.009 ± 0.002	0.472 ± 0.012	0.669 ± 0.157

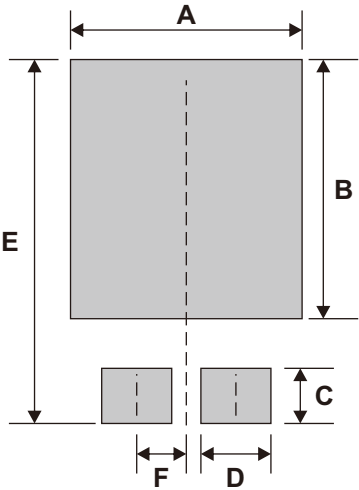
Marking Code

Part Number	Marking Code
CDBHA10100L-HF	S10F100



Suggested P.C.B. PAD Layout

SIZE	TO-277B	
	(mm)	(inch)
A	4.20	0.165
B	4.70	0.185
C	1.27	0.050
D	1.00	0.039
E	6.60	0.260
F	0.90	0.035



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
TO-277B	5,000	13