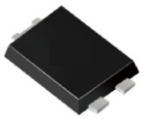
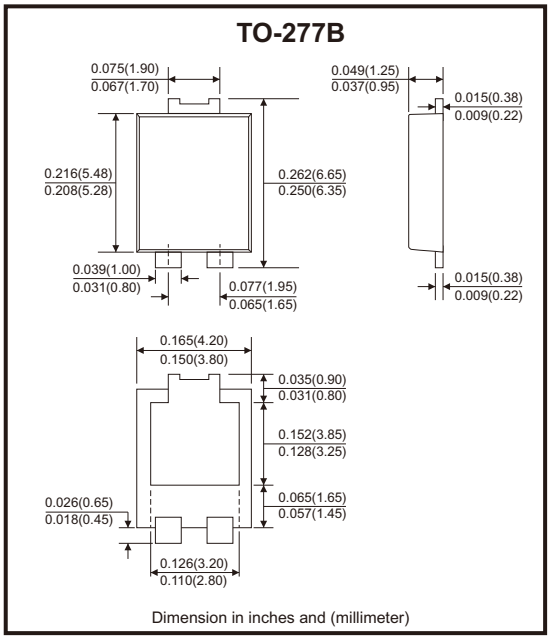
CDBHA10200LR-HF

Reverse Voltage: 200V
Forward Current: 10A
RoHS Device
Halogen Free





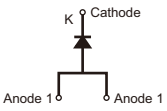
Features

- Metal silicon junction, majority carrier conduction.
- Guard ring for overvoltage protection.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Ideal for automated placement.

Mechanical data

- Case: TO-277B, molded plastic.
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings (at T_A=25°C, unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum average forward rectified current	$I_{F(AV)}$	10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_L)	I_{FSM}	250	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	60	°C/W
	$R_{\theta JL}$	3	
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Notes: 1. Units mounted on recommended PCB 1 oz. Pad layout.

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

Parameter	Conditions		Symbol	Min.	Typ.	Max.	Unit
Instantaneous forward voltage (Note 1)	I_F = 10A	T_A = 25°C	V_F		0.79	0.82	V
		T_A = 100°C			0.68		
		T_A = 125°C			0.65		
	I_F = 5A	T_A = 25°C			0.73		
		T_A = 100°C			0.61		
		T_A = 125°C			0.57		
Reverse current (Note 2)	V_R = 200V	T_A = 25°C	I_R		5	20	μA
		T_A = 100°C				0.3	mA
		T_A = 125°C				1.5	
Typical junction capacitance	V_R = 4V, f = 1MHz		C_J		290		pF

Notes: 1. Pulse test: 300μs pulse width, 1% duty cycle.
2. Pulse test: pulse width ≤ 40ms.

Rating and Characteristics Curves (CDBHA10200LR-HF)

Fig.1 - Forward Current Derating Curve

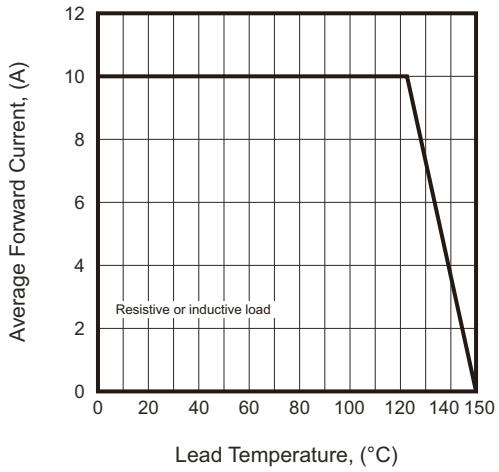


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

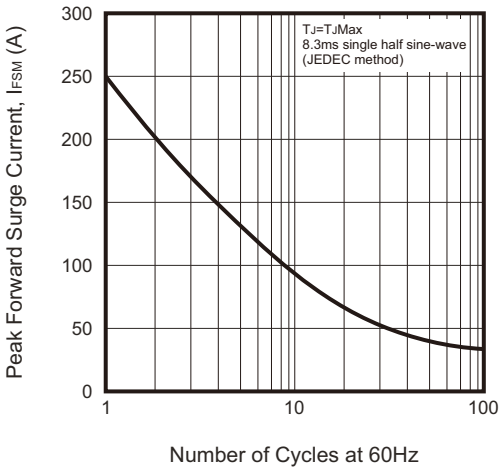


Fig.3 - Typical Instantaneous Forward Characteristics

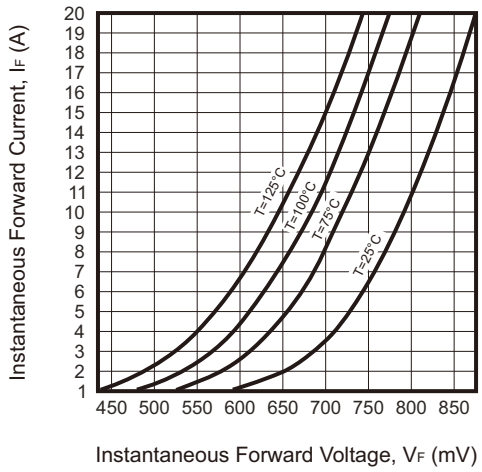


Fig.4 - Typical Reverse Characteristics

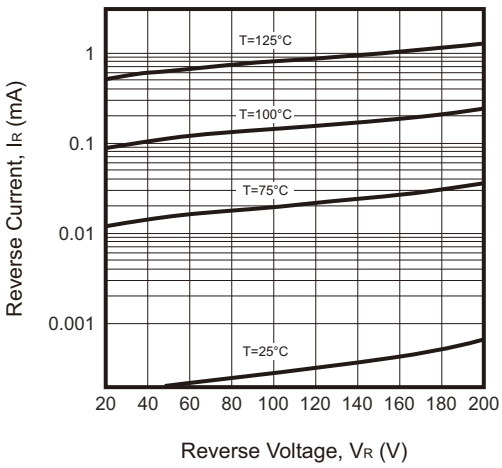
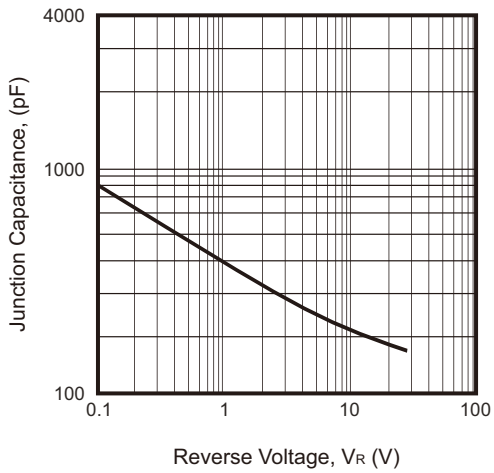
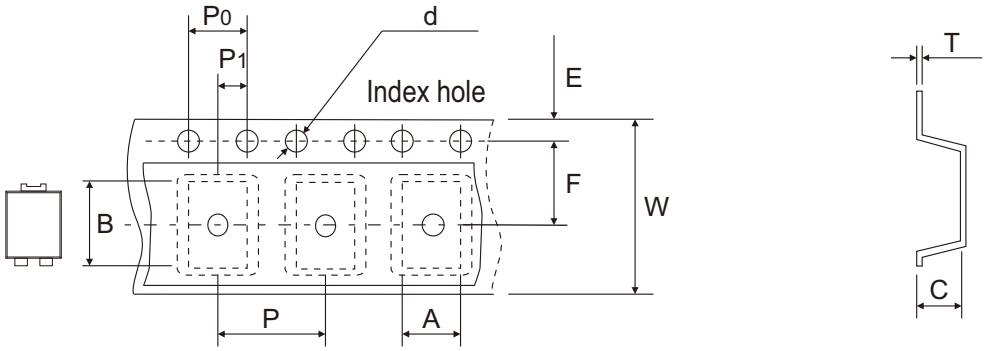
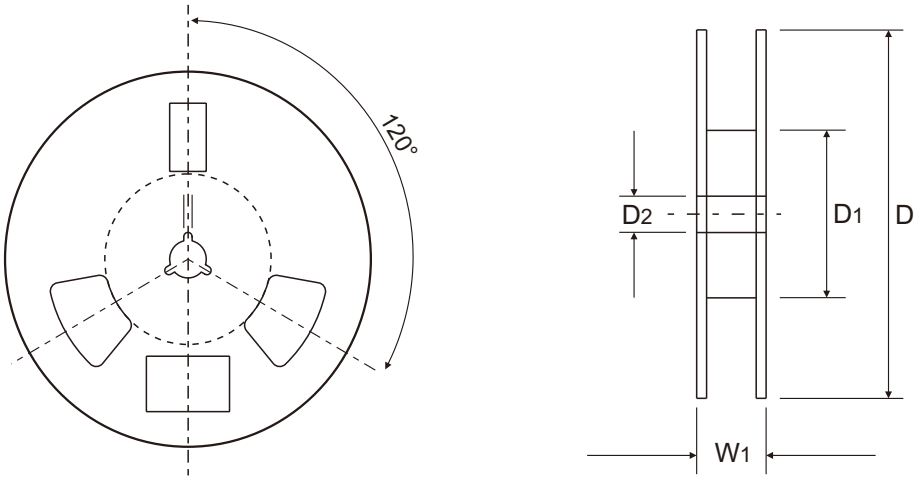


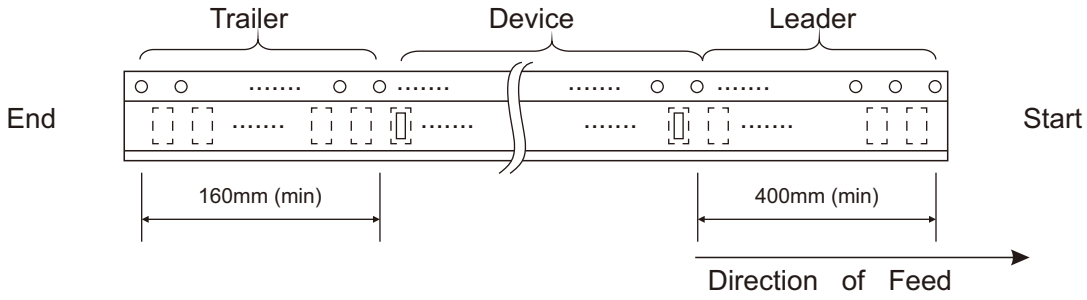
Fig.5 - Typical Junction Capacitance



Reel Taping Specification







	SYMBOL	A	B	C	d	D	D_1	D_2
TO-277B	(mm)	4.38 ± 0.10	6.90 ± 0.10	4.00 ± 0.10	1.55 ± 0.05	330 ± 2.00	75.00 ± 1.00	13.30 ± 0.30
	(inch)	0.172 ± 0.004	0.272 ± 0.004	0.157 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	2.953 ± 0.039	0.524 ± 0.012

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
TO-277B	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.07	4.00 ± 0.07	2.00 ± 0.07	0.30 ± 0.05	16.00 ± 0.20	16.40 ± 0.50
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.003	0.157 ± 0.003	0.079 ± 0.003	0.012 ± 0.002	0.630 ± 0.008	0.646 ± 0.020