

CDBA3200LR-HF Datasheet

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DiGi Electronics Part Number	CDBA3200LR-HF-DG
Manufacturer	Comchip Technology
Manufacturer Product Number	CDBA3200LR-HF
Description	DIODE SCHOTTKY 200V 3A DO214AC
Detailed Description	Diode 200 V 3A Surface Mount DO-214AC (SMA)

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Purchase and inquiry

Manufacturer Product Number:

CDBA3200LR-HF

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

3A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Capacitance @ Vr, F:

250pF @ 4V, 1MHz

Package / Case:

DO-214AC, SMA

Operating Temperature - Junction:

-50°C ~ 175°C

Manufacturer:

Comchip Technology

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

200 V

Voltage - Forward (Vf) (Max) @ If:

850 mV @ 3 A

Current - Reverse Leakage @ Vr:

500 µA @ 200 V

Mounting Type:

Surface Mount

Supplier Device Package:

DO-214AC (SMA)

Base Product Number:

CDBA3200

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

ECCN:

EAR99

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.10.0080

Low VF Low IR SMD Schottky Barrier Rectifiers **Comchip**

SMD Diode Specialist

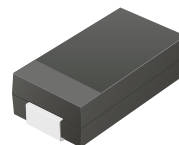
CDBA340LR-HF Thru. CDBA3200LR-HF

Reverse Voltage: 40 to 200 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen free

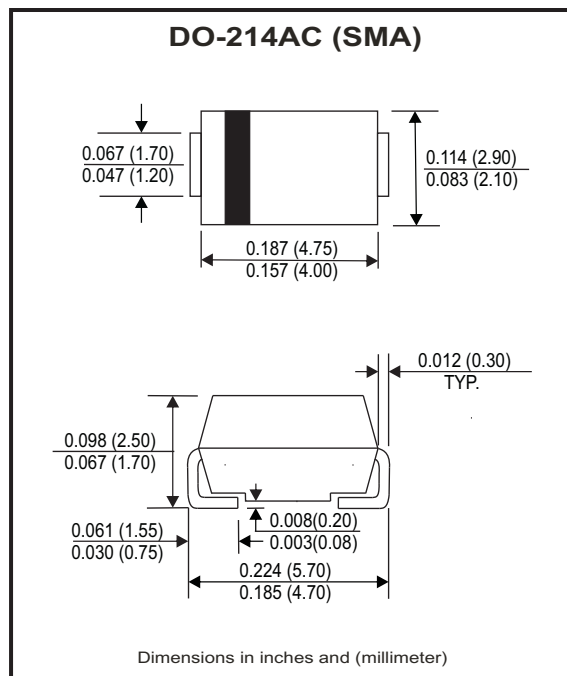


Features

- Low Profile surface mount applications in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Epoxy: UL94-V0 rate flame retardant.
- Case: Molded plastic, DO-214AC / SMA
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.055 grams



Maximum Ratings and Electrical Characteristics

Ratings at $T_a=25^\circ\text{C}$ unless otherwise noted.

Single phase, half wave, 60Hz, resistive or inductive loaded.

For capacitive load, derate current by 20% .

Parameter	Symbol	CDBA 340LR-HF	CDBA 360LR-HF	CDBA 3100LR-HF	CDBA 3150LR-HF	CDBA 3200LR-HF	Units
Max. Repetitive peak reverse voltage	V_{RRM}	40	60	100	150	200	V
Max. DC blocking voltage	V_{DC}	40	60	100	150	200	V
Max. RMS voltage	V_{RMS}	28	42	70	105	140	V
Max. Instantaneous forward voltage @3.0A, $T_A=25^\circ\text{C}$	V_F	0.45	0.55	0.75	0.82	0.85	V
Operating Temperature	T_J	-50 to +150			-50 to +175		$^\circ\text{C}$

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current	see Fig.1	I_o			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			125	A
Reverse Current	$V_R = V_{RRM}$ $T_A=25^\circ\text{C}$	I_R			0.5	mA
	$V_R = V_{RRM}$ $T_A=100^\circ\text{C}$	I_R			20	mA
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		55		$^\circ\text{C/W}$
Diode Junction capacitance	f=1MHz and applied 4V DC reverse Voltage	C_J		250		pF
Storage temperature		T_{STG}	-50		+175	$^\circ\text{C}$

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REV:B

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RATING AND CHARACTERISTIC CURVES (CDBA340LR-HF Thru. CDBA3200LR-HF)

Fig.1 - Typical Forward Current Derating Curve

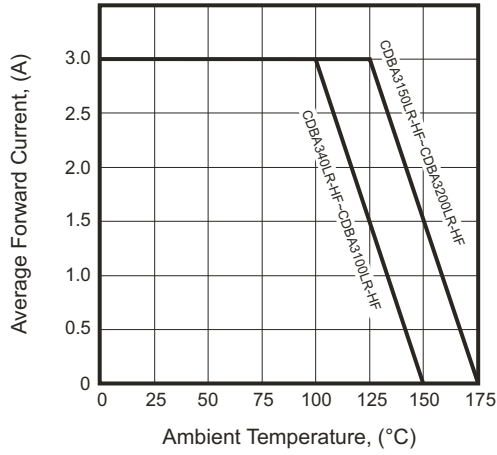


Fig.2 - Typical Forward Characteristics

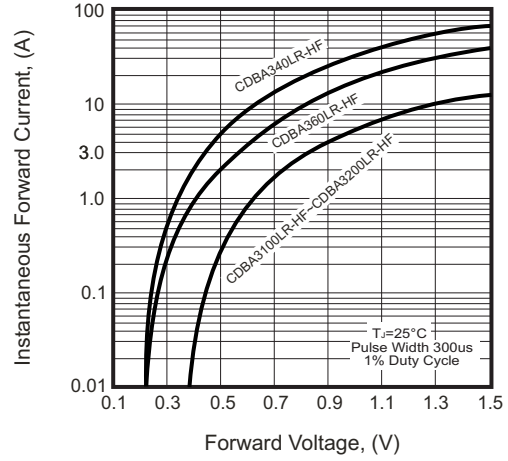


Fig.3 - Maximum Non-repetitive Forward Surge Current

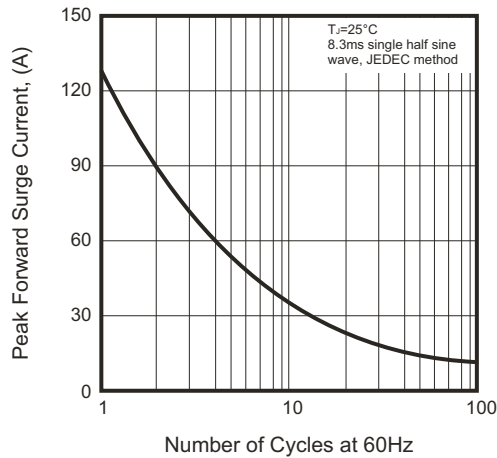


Fig.4 - Typical Junction Capacitance

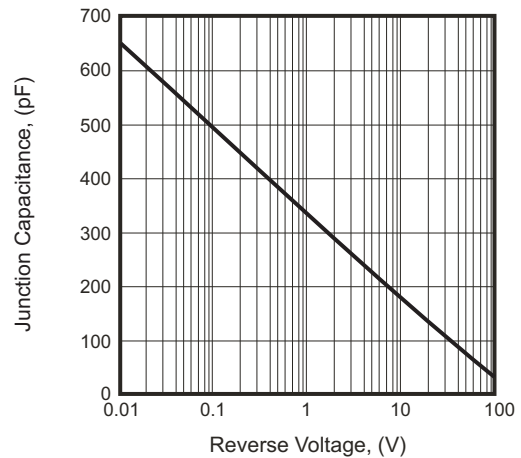
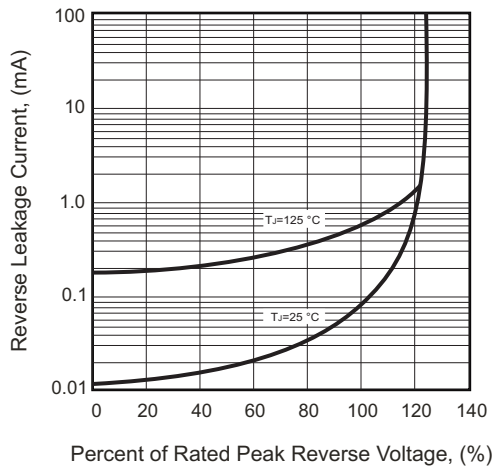


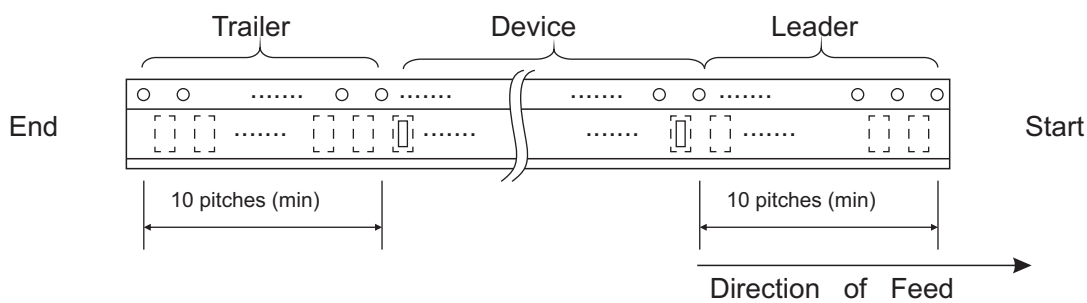
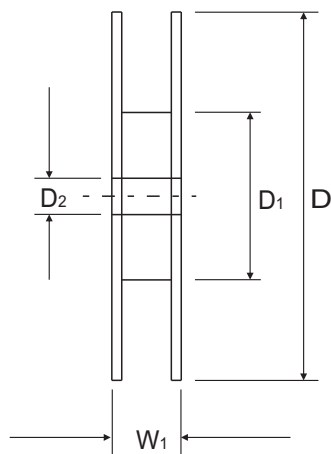
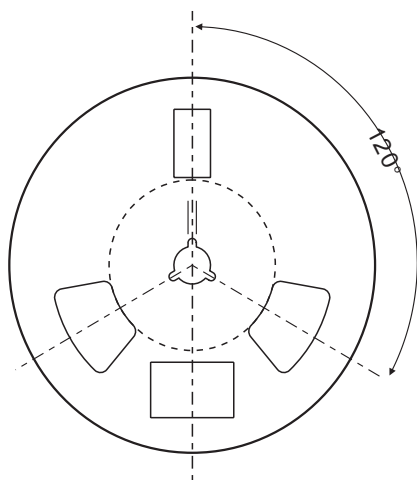
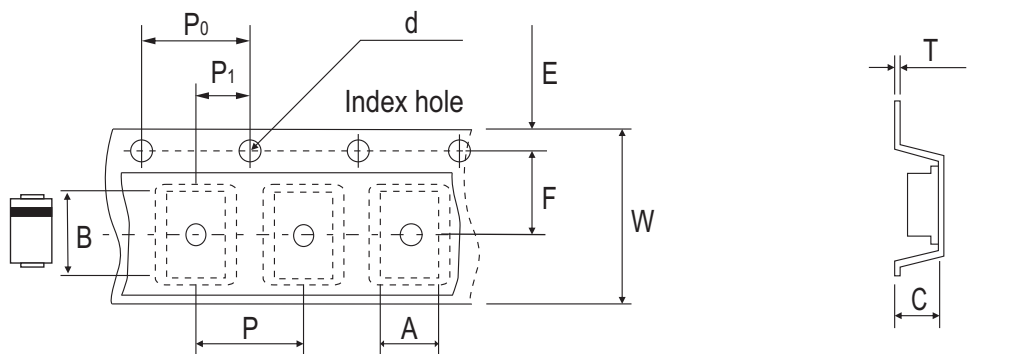
Fig.5 - Typical Reverse Characteristics



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Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 ± 0.10	5.30 ± 0.10	2.66 ± 0.10	1.50 ± 0.10	330 ± 2.00	62.0 MIN.	13.50 ± 0.50
	(inch)	0.106 ± 0.004	0.209 ± 0.004	0.105 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	2.441 MIN.	0.531 ± 0.020

DO-214AC (SMA)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	12.0 ± 0.30	18.40 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ± 0.012	0.724 ± 0.039

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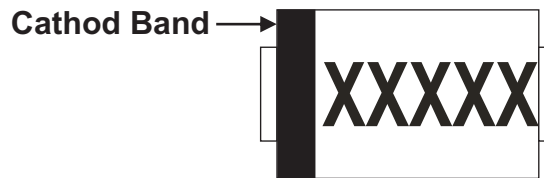
REV.B

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SMD Diode Specialist

Marking Code

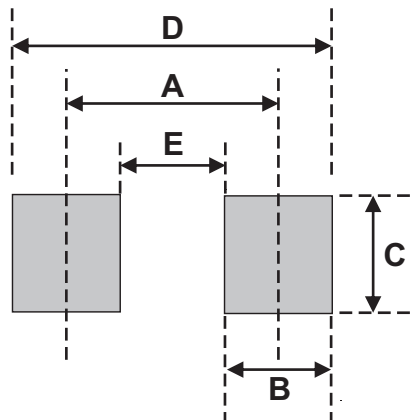
Part Number	Marking Code
CDBA340LR-HF	KL34
CDBA360LR-HF	KL36
CDBA3100LR-HF	KL310
CDBA3150LR-HF	KL315
CDBA3200LR-HF	KL320



XXXXXX = Product type marking code

Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	4.00	0.157
B	2.50	0.100
C	1.70	0.068
D	6.50	0.256
E	1.50	0.060



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA)	5,000	13

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