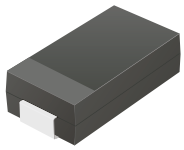
CDBB120SL-HF Thru. CDBB140SL-HF

Reverse Voltage: 20 to 40 Volts
Forward Current: 1.0 Amp
RoHS Device
Halogen Free



Features

-Low Profile surface mount applications in order to optimize board space.

-Low power loss, high efficiency.

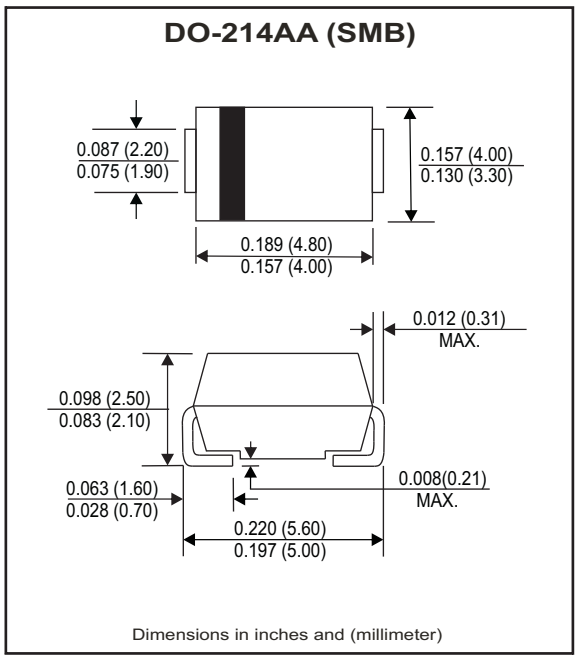
-Hight current capability, low forward voltage drop.

-Hight surge capability.

-Guardring 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-214AA / SMB

-Terminals: Gold plated, solderable per MIL-STD-750, method 2026.

-Polarity: Indicated by cathode band.

-weight: 0.091 grams

Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.
Single phase, half wave, 60Hz, resistive or inductive loaded.
For capacitive load, derate current by 20% .

Parameter	Symbol	CDBB120SL-HF	CDBB130SL-HF	CDBB140SL-HF	Units
Max. Repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Max. DC blocking voltage	V_{DC}	20	30	40	V
Max. RMS voltage	V_{RMS}	14	21	28	V
Max. instantaneous forward voltage @ 1.0A, T_A=25°C	V_F	0.33			V
Operating Temperature	T_J	-50 to +100			°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current	see Fig.1	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Reverse current	V_R =V_{RRM} T_A=25°C	I_R			1.0	mA
	V_R =V_{RRM} T_A=100°C	I_R			20	mA
Thermal resistance	Junction to ambient	$R_{\theta JA}$		70		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse Voltage	C_J		160		pF
Storage temperature		T_{STG}	-50		+150	°C

RATING AND CHARACTERISTIC CURVES (CDBB120SL-HF Thru. CDBB140SL-HF)

Fig.1 - Typical Forward Current Derating Curve

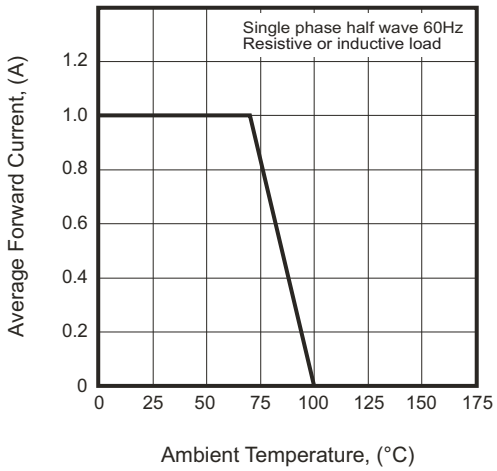


Fig.2 - Typical Forward Characteristics

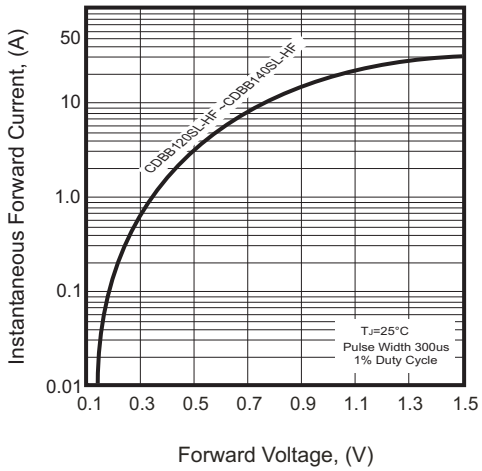


Fig.3 - Maximum Non-repetitive Forward Surge Current

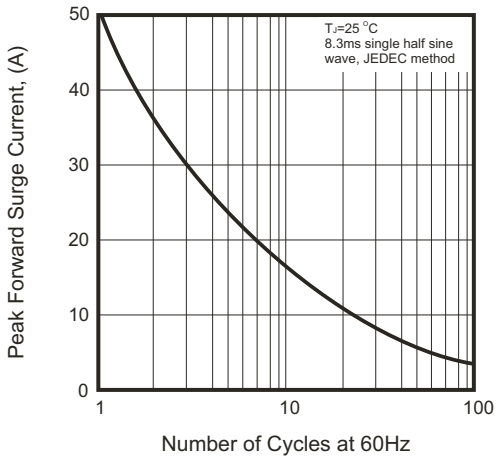


Fig.4 - Typical Junction Capacitance

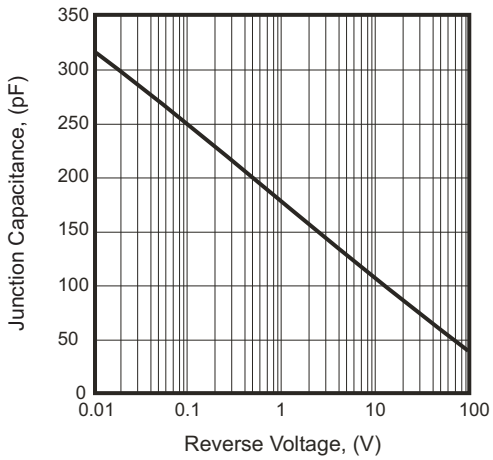
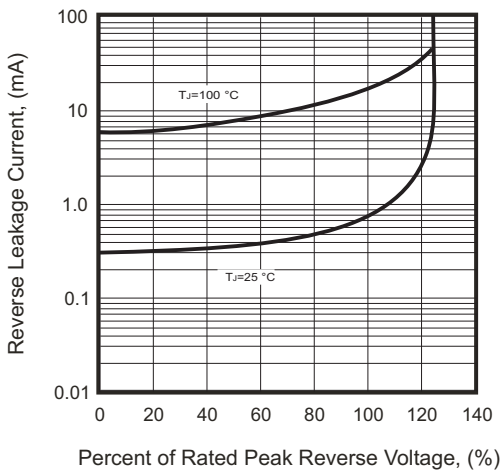
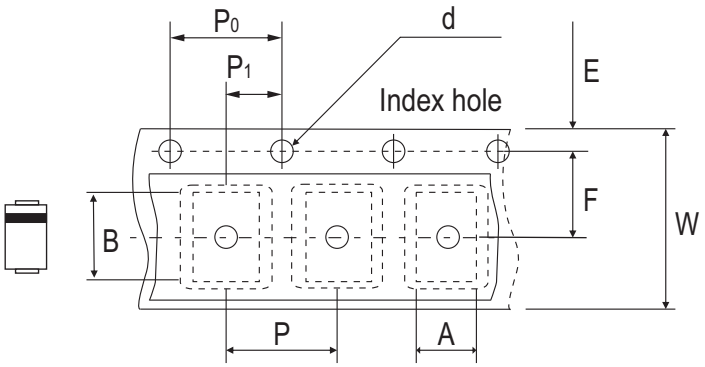
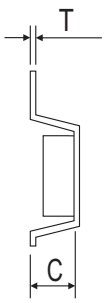


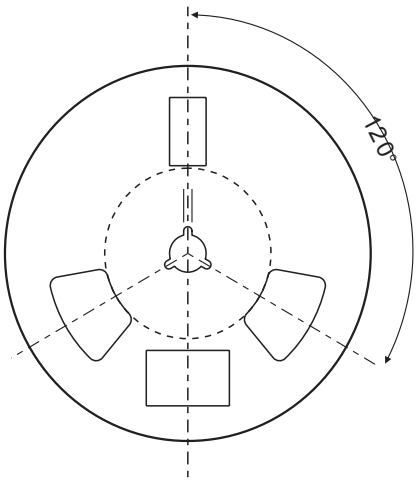
Fig.5 - Typical Reverse Characteristics

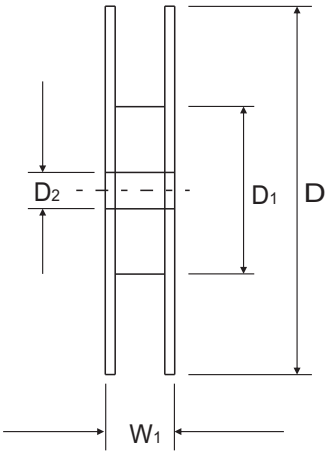


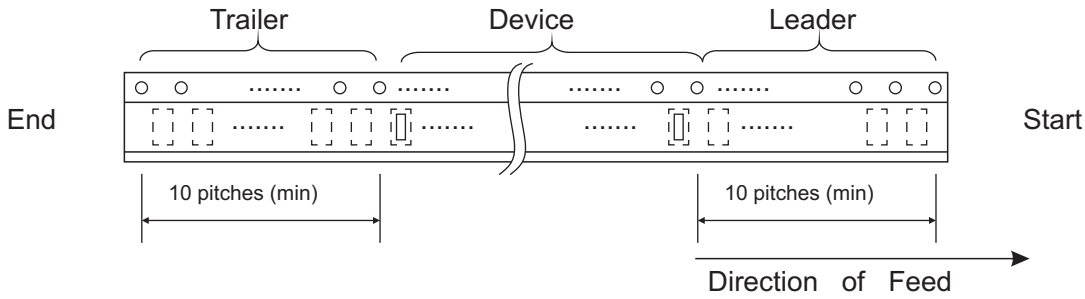
Reel Taping Specification









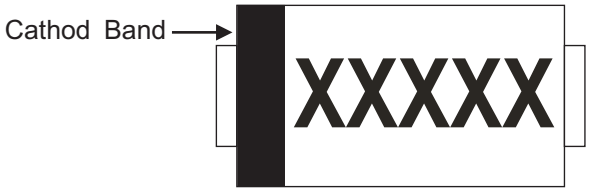


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.00 ± 0.10	5.90 ± 0.10	3.00 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.50 ± 0.50
	(inch)	0.157 ± 0.004	0.232 ± 0.004	0.118 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.020

DO-214AA (SMB)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	12.00 ± 0.30	18.40 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ±0.012	0.724 ± 0.040

Marking Code

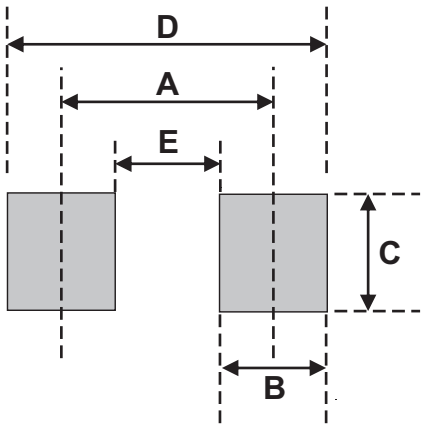
Part Number	Marking Code
CDBB120SL-HF	SLS12
CDBB130SL-HF	SLS13
CDBB140SL-HF	SLS14



xxxxx = Product type marking code

Suggested PAD Layout

SIZE	DO-214AA (SMB)	
	(mm)	(inch)
A	4.30	0.169
B	2.50	0.098
C	2.30	0.091
D	6.80	0.268
E	1.80	0.071



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AA (SMB)	3,000	13