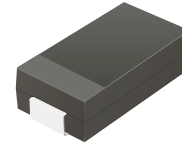


CDBA140SL-HF

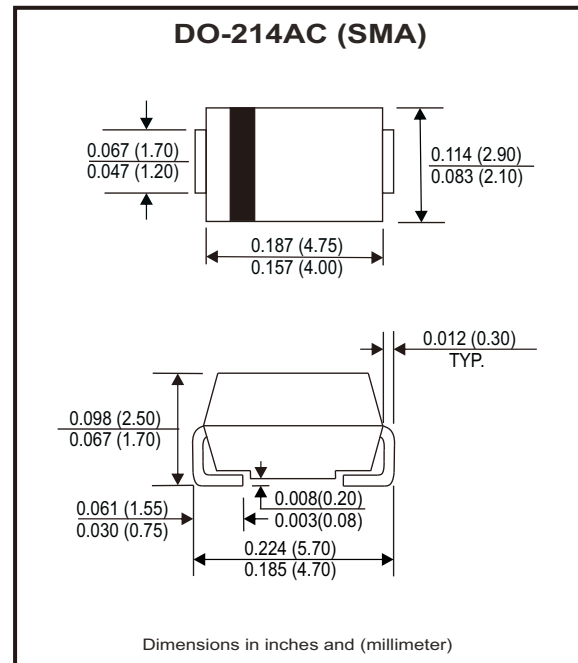
Reverse Voltage: 40 Volts
Forward Current: 1.0 Amp
RoHS Device
Halogen free


Features

- Low Profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- 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: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.08 grams(Approx.)



Circuit diagram



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

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Peak repetitive reverse voltage	$I_R = 1\text{mA}$, $T_J = 25^\circ\text{C}$	V_{RRM}			40	V
Working peak reverse voltage		V_{RWM}			40	V
DC blocking voltage		V_{DC}			40	V
Forward rectified current		I_O			1	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Peak repetitive reverse surge current	2 μs - 1KHz	I_{RRM}			2	A
Thermal resistance	Junction to case	$R_{\theta JC}$			40	$^\circ\text{C/W}$
	Junction to ambient	$R_{\theta JA}$			70	
Operating Temperature range		T_J	-55		+100	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		+150	

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

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward voltage drop	$I_F = 1\text{A}$, $T_J = 25^\circ\text{C}$	V_F		275	330	mV
Reverse current	$V_R = V_{RRM}$, $T_J = 25^\circ\text{C}$	I_R		0.2	1	mA
	$V_R = V_{RRM}$, $T_J = 100^\circ\text{C}$				80	

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

REV: D

RATING AND CHARACTERISTIC CURVES (CDBA140SL-HF)

Fig.1 - Typical Forward Characteristics

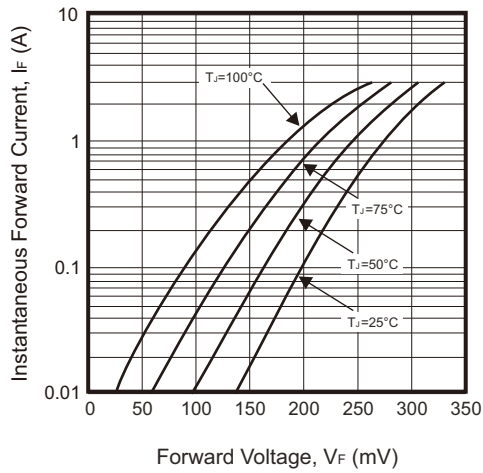


Fig.2 - Reverse Characteristics

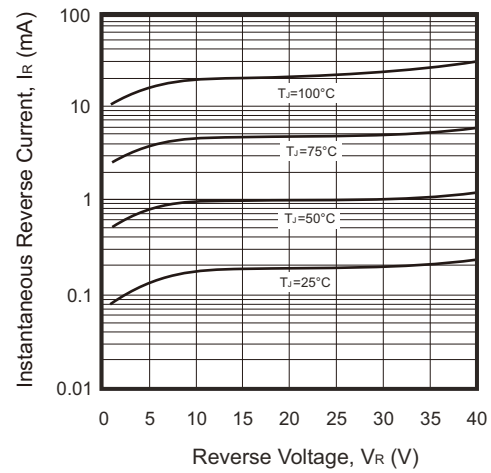


Fig.3 - Forward Power Dissipation

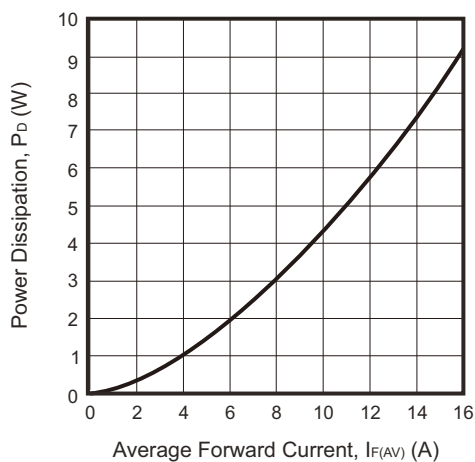


Fig.4 - Typical Forward Current Derating Curve

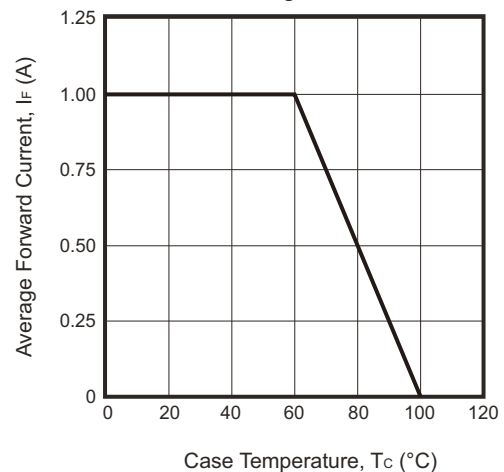
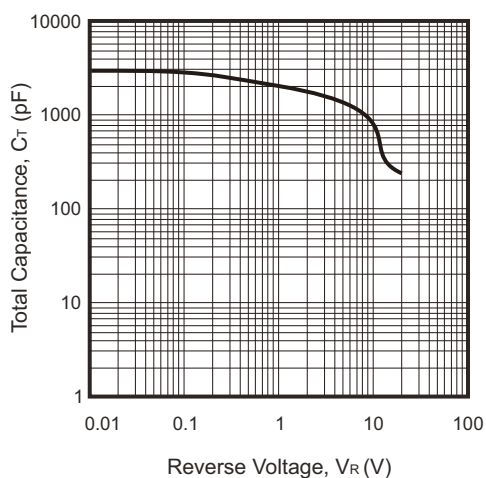
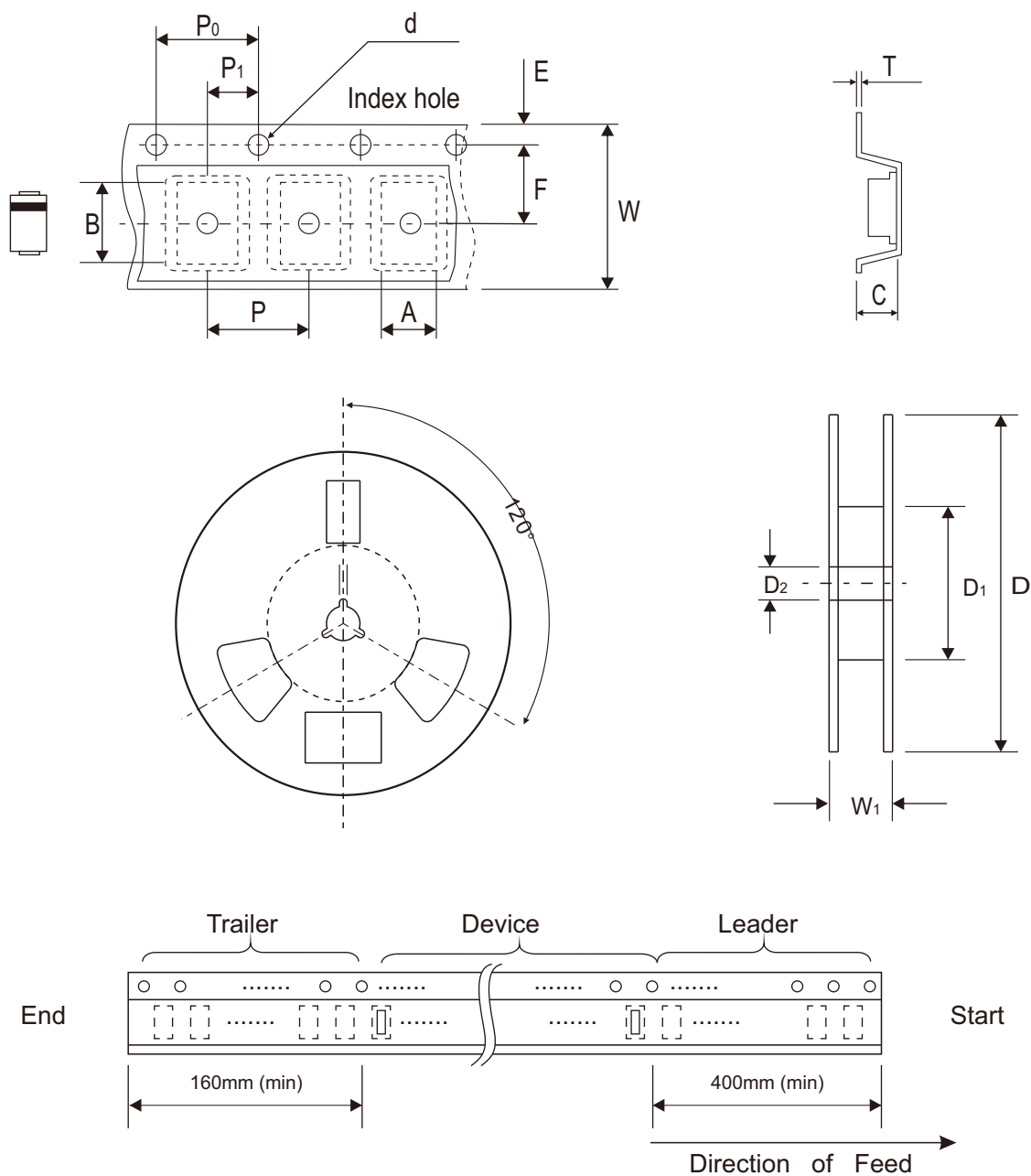


Fig.5 - Total Capacitance VS. Reverse Voltage



Reel Taping Specification

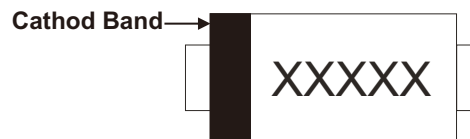


DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 ± 0.10	5.30 ± 0.10	2.66 ± 0.10	1.50 ± 0.10	330 ± 2.00	62.0 MIN.	13.50 ± 0.50
	(inch)	0.106 ± 0.004	0.209 ± 0.004	0.105 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	2.441 MIN.	0.531 ± 0.020

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

Marking Code

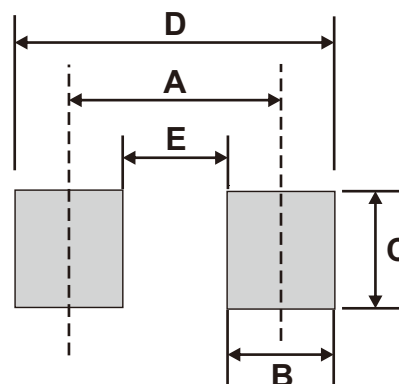
Part Number	Marking Code
CDBA140SL-HF	SLS14



xxxxxx = Product type marking code

Suggested PAD Layout

SIZE	DO-214AC(SMA)	
	(mm)	(inch)
A	4.10	0.161
B	2.60	0.102
C	1.70	0.067
D	6.70	0.264
E	1.50	0.059



Standard Packaging

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