

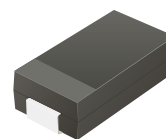
## CDBA360LR-HF

**Reverse Voltage: 60 V**

**Forward Current: 3.0 A**

**RoHS Device**

**Halogen free**

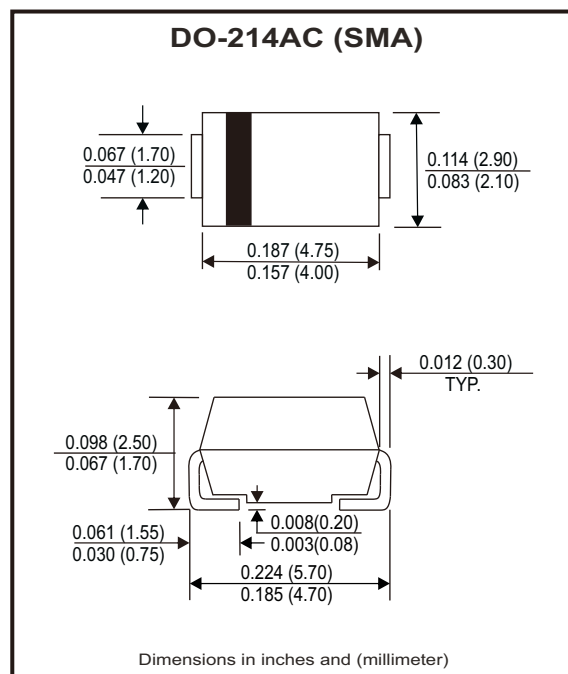


### Features

- 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 rated 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 (approx.).



### Circuit Diagram



### 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	CDBA360LR-HF	Units
Max. Repetitive peak reverse voltage	$V_{RRM}$	60	V
Max. DC blocking voltage	$V_{DC}$	60	V
Max. RMS voltage	$V_{RMS}$	42	V
Max. Instantaneous forward voltage @3.0A, $T_A=25^{\circ}\text{C}$	$V_F$	0.55	V
Operating temperature	$T_J$	-50 to +150	$^{\circ}\text{C}$

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		$^{\circ}\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		250		pF
Storage temperature		$T_{STG}$	-50		+175	$^{\circ}\text{C}$

## Rating and Characteristic Curves (CDBA360LR-HF)

Fig.1 - Typical Forward Current Derating Curve

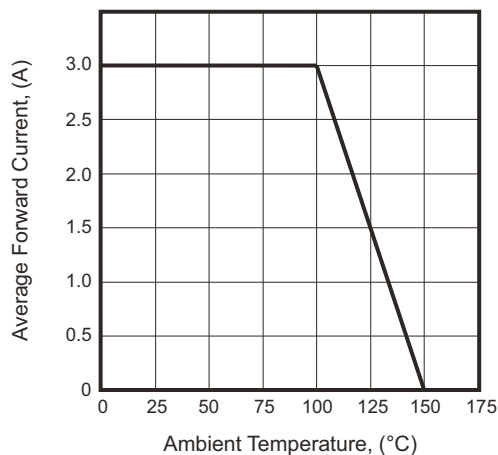


Fig.2 - Typical Forward Characteristics

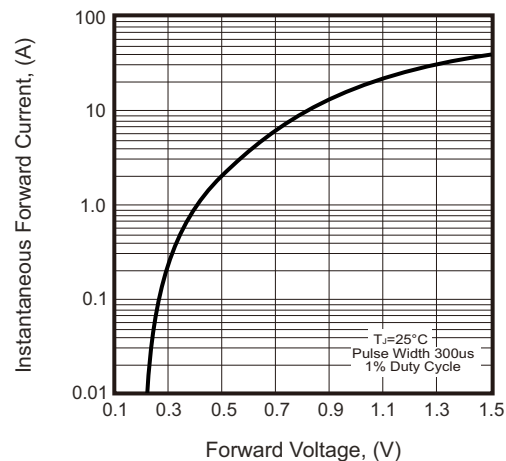


Fig.3 - Maximum Non-repetitive Forward Surge Current

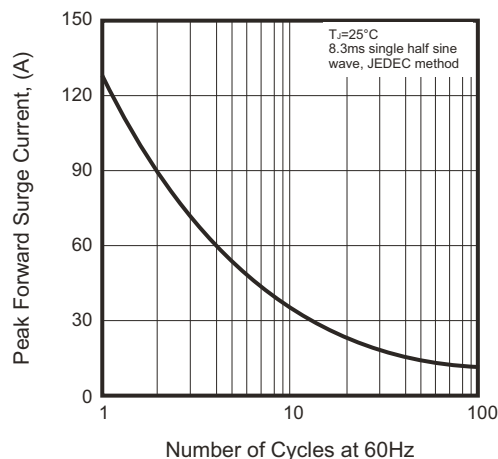


Fig.4 - Typical Junction Capacitance

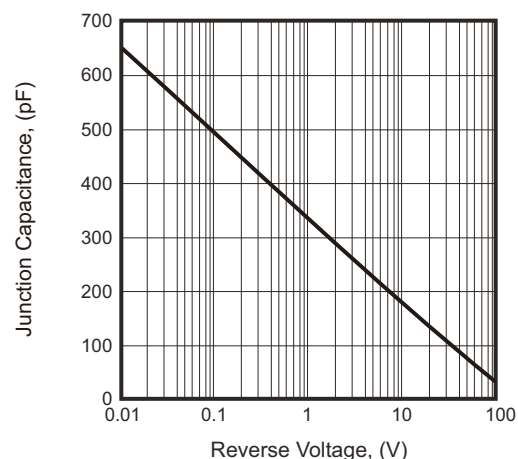
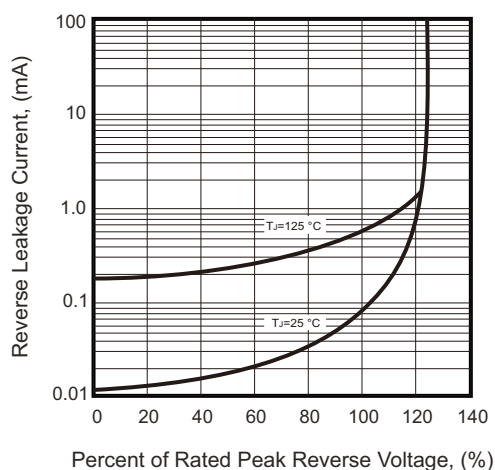
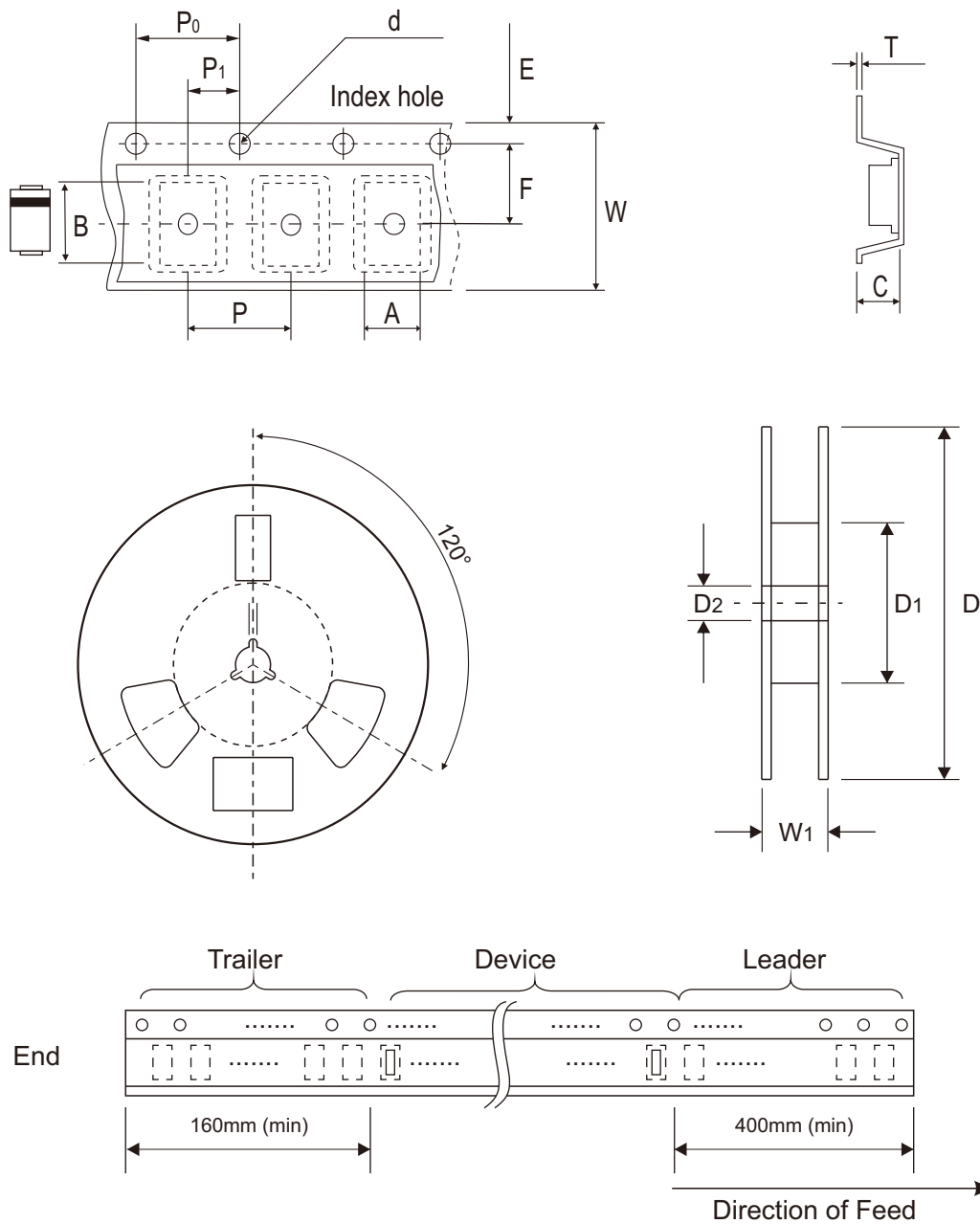


Fig.5 - Typical Reverse Characteristics



Reel Taping Specification

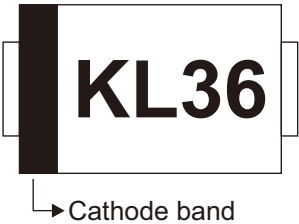


DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$2.70 \pm 0.10$	$5.30 \pm 0.10$	$2.66 \pm 0.10$	$1.50 \pm 0.10$	$330 \pm 2.00$	62.0 MIN.	$13.50 \pm 0.50$
	(inch)	$0.106 \pm 0.004$	$0.209 \pm 0.004$	$0.105 \pm 0.004$	$0.059 \pm 0.004$	$12.99 \pm 0.079$	2.441 MIN.	$0.531 \pm 0.020$

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

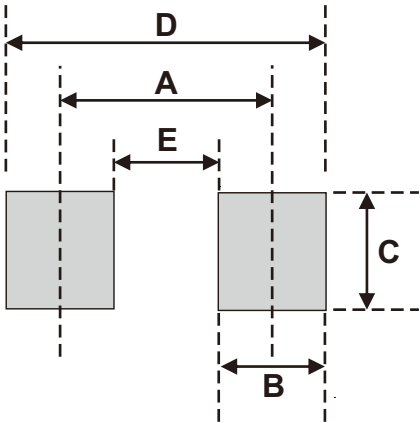
Marking Code

Part Number	Marking Code
CDBA360LR-HF	KL36



Suggested P.C.B. 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