

## CDBA5817-G

Reverse Voltage: 20 Volts

Forward Current: 1A

RoHS Device

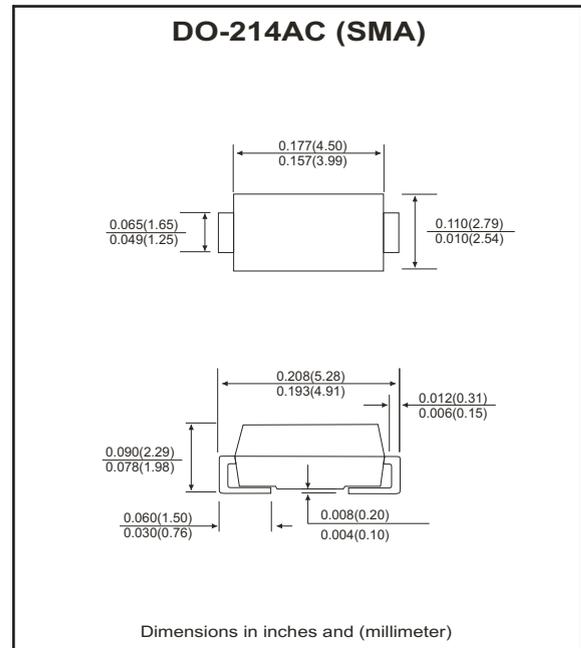


### Features

- Ideal for surface mount applications.
- Low power losses, high efficiency.
- High current capability, Low forward voltage drop.
- High surge capability.
- High temperature soldering:  
250°C/10 seconds at terminals.

### Mechanical data

- Case: JEDEC DO-214AC, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.064 grams



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Parameter	Symbol	CDBA5817-G	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	V
Maximum RMS voltage	$V_{RMS}$	14	V
Maximum DC blocking voltage	$V_{DC}$	20	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (see Fig.1)	$I_{F(AV)}$	1.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30	A
Max. instantaneous forward voltage at 1.0A (Note 1)	$V_F$	0.55	V
Maximum instantaneous reverse current at Rated DC blocking voltage (Note 1)	$I_R$	0.5 10	mA
Typical thermal capacitance (Note 2)	$R_{\theta JL}$	28	°C/W
	$R_{\theta JA}$	88	
Operating temperature range	$T_J$	-65 ~ +125	°C
Storage temperature range	$T_{STG}$	-65 ~ +150	°C

**NOTES:**

1. Pulse test: 300µs pulse width, 1% duty cycle.
2. P.C.B. Mounted with 0.2×0.2" (5.0×5.0mm) copper pads.
3. Company reserves the right to improve product design, functions and reliability without notice.

## RATING AND CHARACTERISTIC CURVES (CDBA5817-G)

Fig.1 - Forward Current derating curve

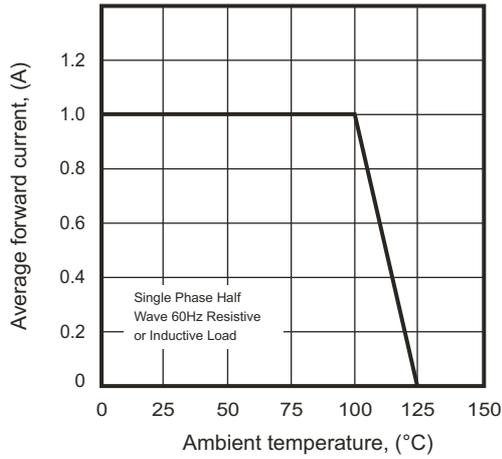


Fig.2 - Maximum Non-repetitive Surge Current

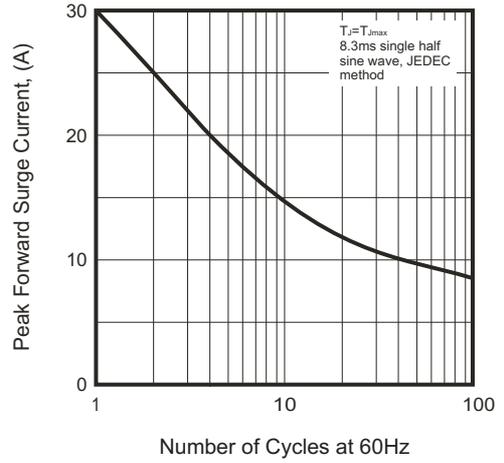


Fig.3 - Typical Instantaneous Forward Characteristics

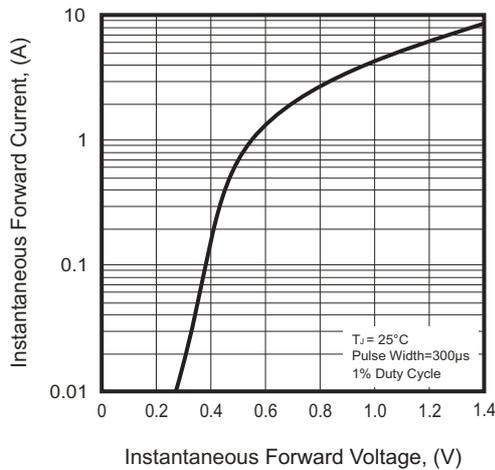


Fig.4 - Typical Junction Capacitance

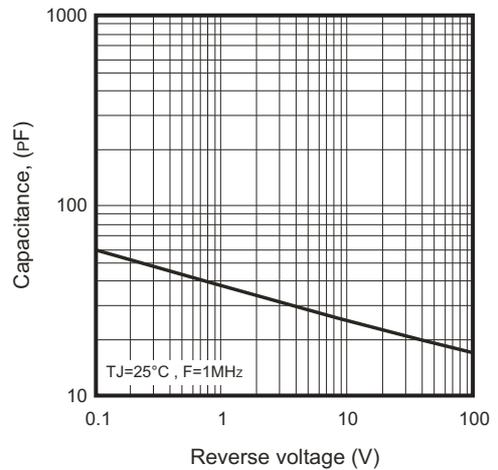
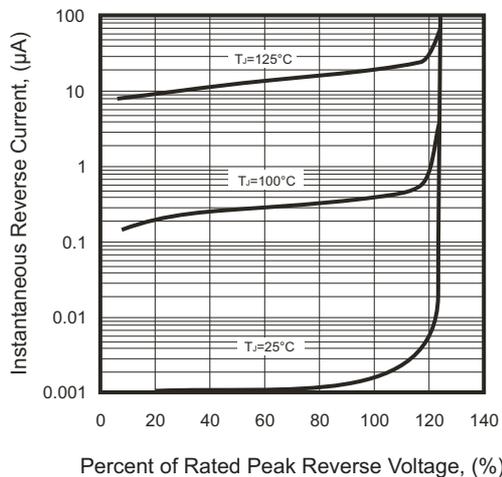
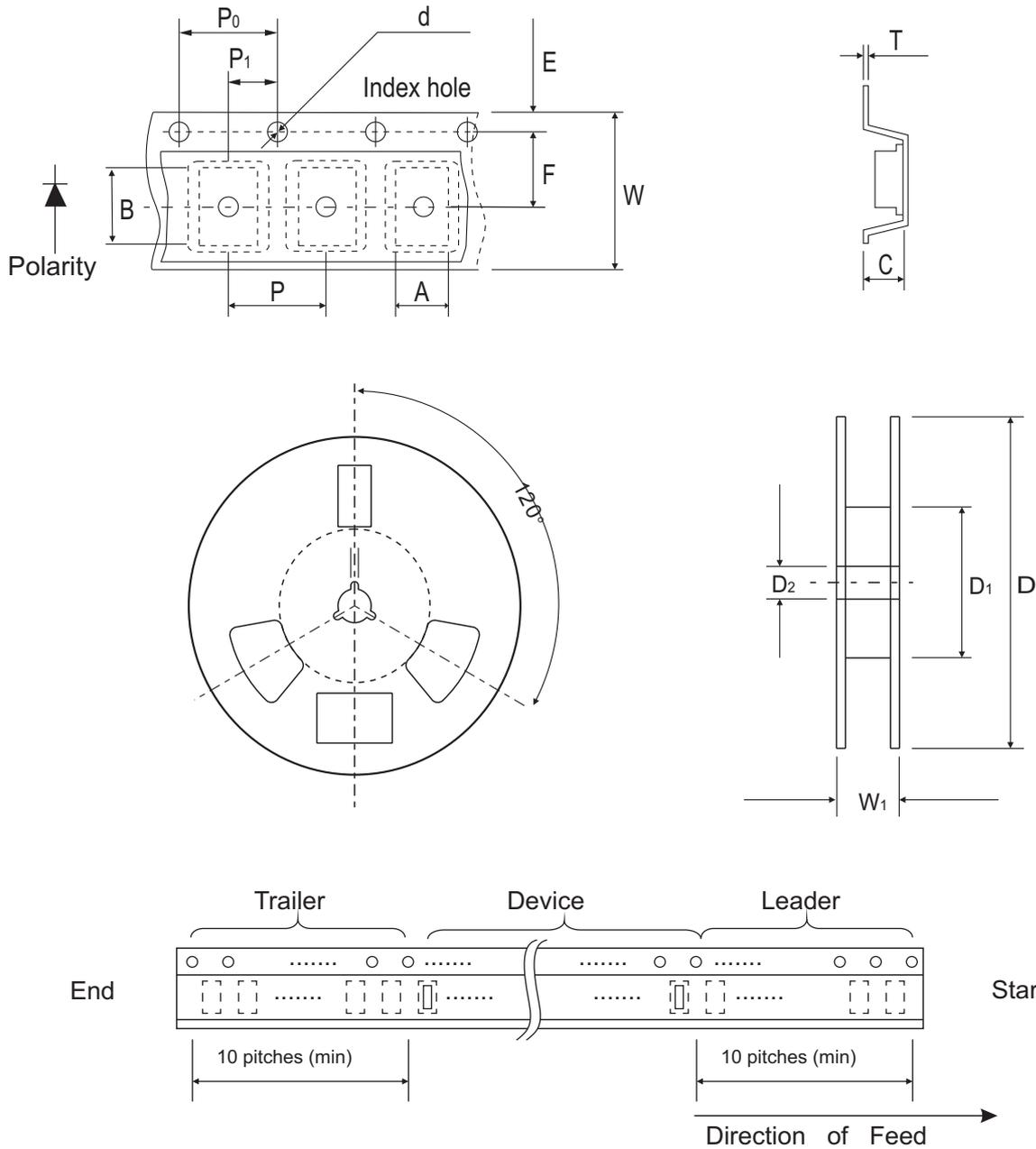


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification

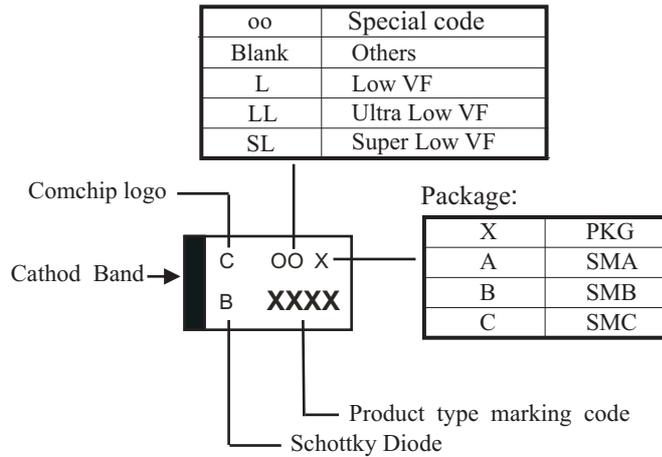


SMA (DO-214AC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 (max)	5.30 (max)	2.66 (max)	1.50 ± 0.10	330	50.0 MIN.	13.5 ± 1.00
	(inch)	0.106 (max)	0.209 (max)	0.105 (max)	0.059 ± 0.004	12.99	1.969 MIN.	0.531 ± 0.039

SMA (DO-214AC)	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.0 ± 0.20	18.4 (max)
	(inch)	0.689 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.472 ± 0.008	0.724 (max)

## Marking Code

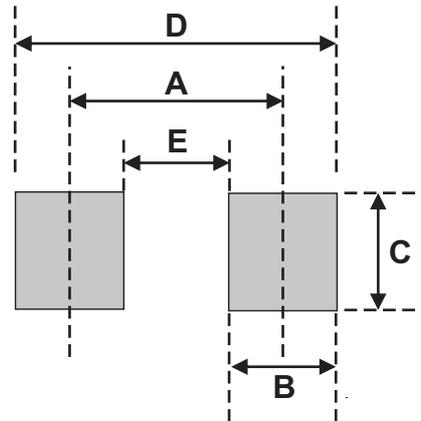
Part Number	Marking Code
CDBA5817-G	5817



xxxx = Product type marking code

## Suggested PAD Layout

SIZE	DO-214AC(SMA)	
	(mm)	(inch)
A	3.80	0.150
B	1.60	0.063
C	2.80	0.110
D	5.40	0.213
E	2.20	0.087



## Standard Packaging

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