

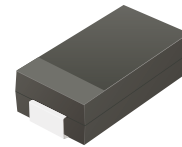
## CDBB545LR-HF

Reverse Voltage: 45 V

Forward Current: 5 A

RoHS Device

Halogen free

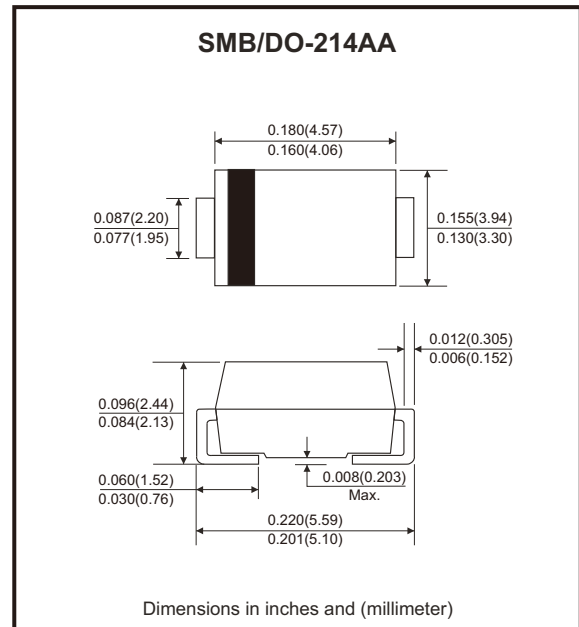


### Features

- High current capability.
- High surge current capability.
- Low reverse current.

### Mechanical data

- Case: SMB/DO-214AA, molded plastic.
- Epoxy: UL flammability classification rating 94V-0.
- Terminals: Lead free plating (Tin Finish)  
solderable per MIL-STD-202, method 208.
- Polarity: Cathode band.



### Circuit Diagram



### Maximum Ratings (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Max. Repetitive peak reverse voltage		$V_{RRM}$			45	V
Max. RMS voltage		$V_{RMS}$			31.5	V
Max. DC blocking voltage		$V_{DC}$			45	V
Max. Average forward rectified current		$I_F$			5	A
Peak forward surge current	8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$			100	A
Max. Instantaneous forward voltage	$I_F = 2A @ 25^\circ\text{C}$ $I_F = 5A @ 25^\circ\text{C}$	$V_F$		0.37 -	- 0.48	V
Max. DC reverse current at rated DC blocking voltage	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$			0.5 10	mA
Typical junction capacitance (Note 1)		$C_j$		1000		pF
Typical thermal resistance		$R_{\theta JC}$		25		$^\circ\text{C/W}$
Operating temperature range		$T_J$	-55		+150	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-55		+150	$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4V DC.

## Rating and Characteristic Curves (CDBB545LR-HF)

Fig.1 - Typical Forward Current Derating Curve

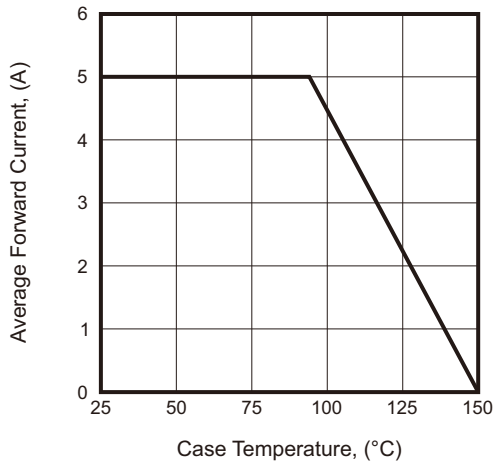


Fig.2 - Typical Forward Characteristics

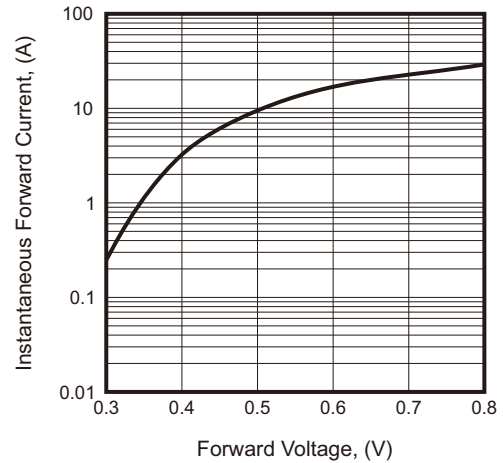


Fig.3 - Maximum Non-Repetitive Forward Surge Current

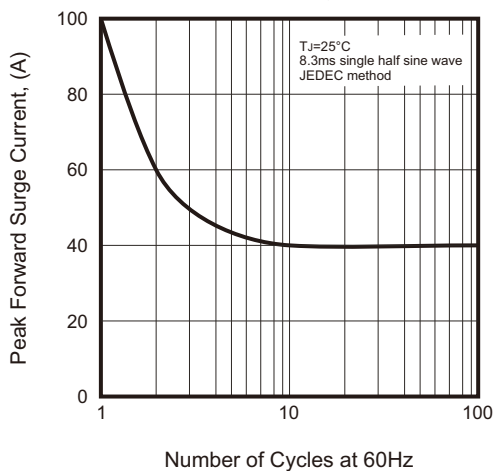


Fig.4 - Typical Reverse Characteristics

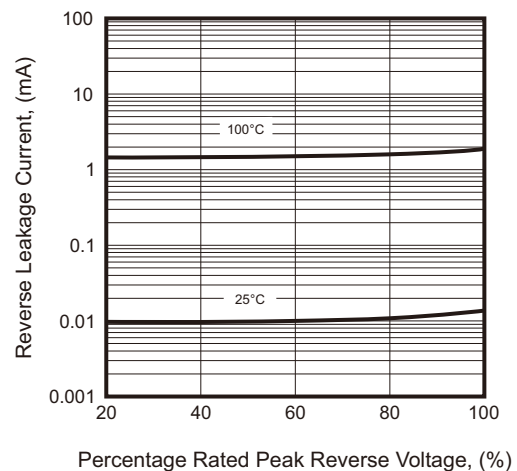
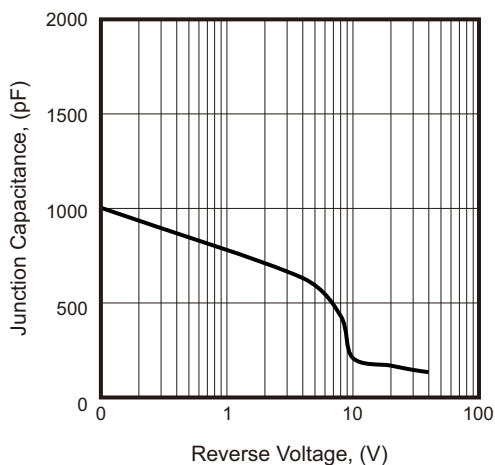
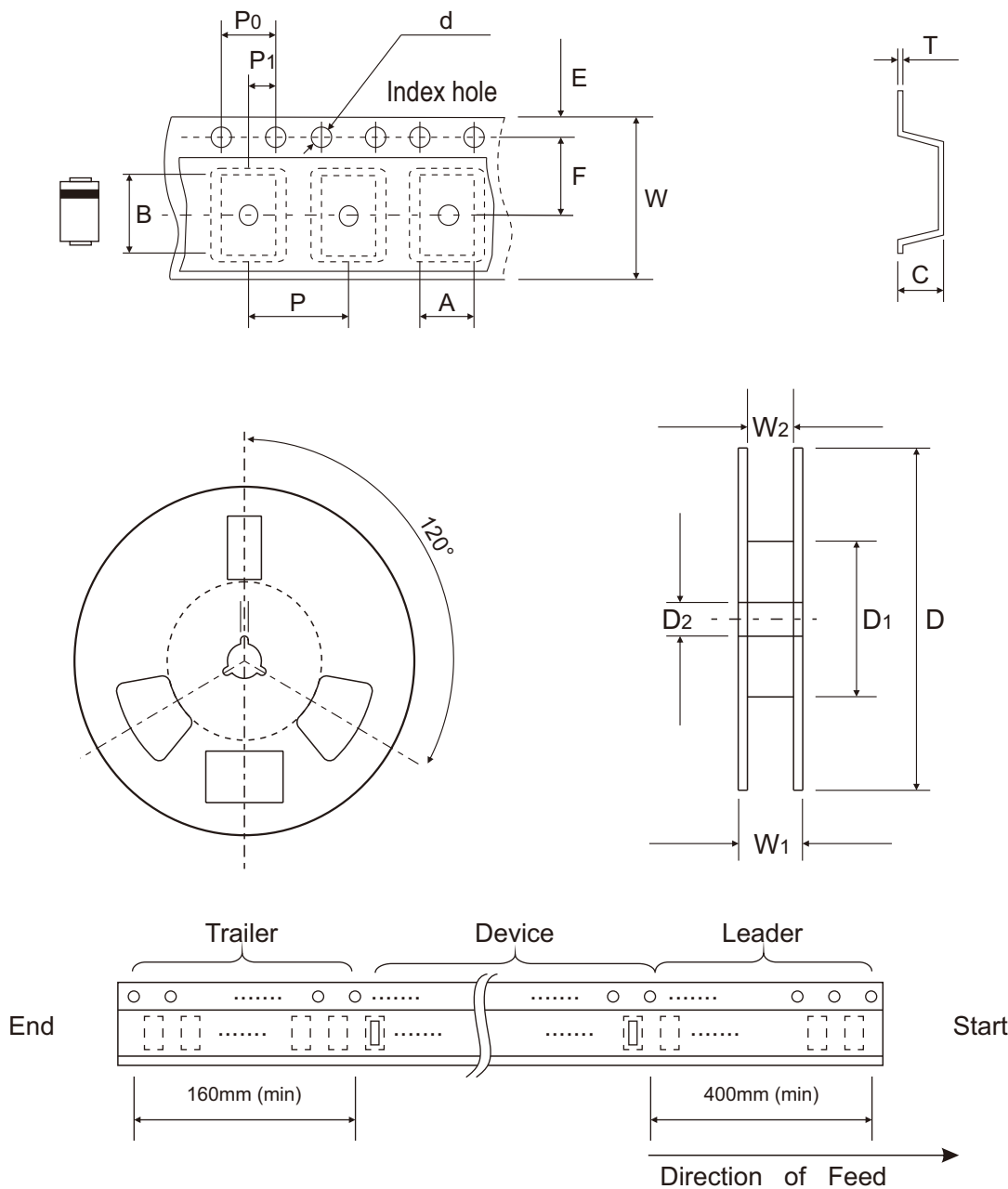


Fig.5 - Typical Junction Capacitance



## Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	4.00 Max.	5.90 Max.	3.00 Max.	1.50 ± 0.10	330.00 ± 2.00	50.00 Min.	13.50 ± 1.00	1.75 ± 0.10
	(inch)	0.157 Max.	0.232 Max.	0.118 Max.	0.059 ± 0.004	12.992 ± 0.079	1.969 Min.	0.531 ± 0.039	0.069 ± 0.004
DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.60 Max.	12.00 ± 0.30	18.40 Max.	14.40 Max.
	(inch)	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.024 Max.	0.472 ± 0.012	0.724 Max.	0.567 Max.

## Marking Code

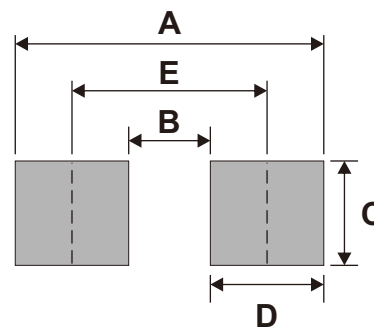
Part Number	Marking Code
CDBB545LR-HF	T5E45B



■ = Cathode band  
XXXX = Control code

## Suggested P.C.B. PAD Layout

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



## Standard Packaging

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