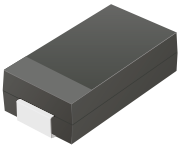
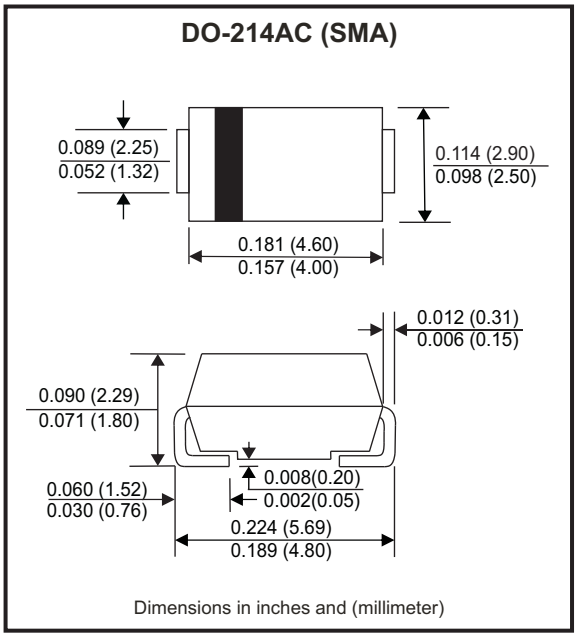
CEFA101-HF thru. CEFA105-HF

Reverse Voltage: 50 to 600 Volts
Forward Current: 1.0 Amp
RoHS Device
Halogen Free





Features

- Glass Passivated chip junction.
- Very low drop down voltage.
- Super fast recovery time for high efficiency.
- Low reverse leakage.
- High surge current capability.

Mechanical data

- Case: SMA/DO-214AC, molded plastic.
- Epoxy: UL 94V-0 rated flame retardant.
- Terminals: Solderable per MIL-STD-750, Method 2026.
- Polarity: Color band denotes cathode end.
- Weight: 0.064 grams(approx.).

Circuit diagram

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

Parameter		Symbol	CEFA 101-HF	CEFA 102-HF	CEFA 103-HF	CEFA 104-HF	CEFA 105-HF	Units
Max. recurrent peak reverse voltage		V_{RRM}	50	100	200	400	600	V
Max. DC blocking voltage		V_{DC}	50	100	200	400	600	V
Max. RMS voltage		V_{RMS}	35	70	140	280	420	V
Max. average forward rectified current (see Fig.1)		$I_{(AV)}$	1.0					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) T_L=120°C		I_{FSM}	30					A
Max. instantaneous forward voltage @1.0A		V_F	1.0			1.3	1.7	V
Max. DC reverse current at rated DC blocking voltage	T_A=25°C	I_R	5					μA
	T_A=125°C	I_R	100					
Typical reverse recovery time (Note 1)		T_{rr}	35		25	35		nS
Typical junction capacitance (Note 2)		C_J	10					pF
Typical thermal resistance (Note 3)		$R_{\theta JL}$	24					°C/W
		$R_{\theta JA}$	150					
Operating junction temperature range		T_J	-55 to +150					°C
Storage temperature range		T_{STG}	-55 to +150					°C

Notes: 1. Reverse recovery test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.
2. Measured at 1.0MHZ and applied reverse voltage of 4.0 Volts.
3. Mounted on an FR4 PCB, single sided copper, with 48"cm copper pad area, and mini pad.

Rating and Characteristic Curves (CEFA101-HF thru. CEFA105-HF)

Fig.1 - Typical Forward Current Derating Curve

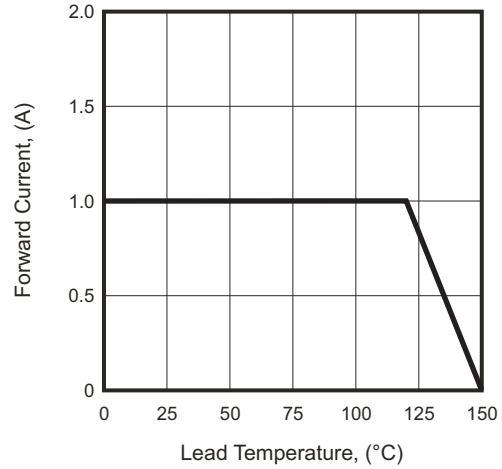


Fig.3 - Maximum Non-repetitive Peak Forward Surge Current

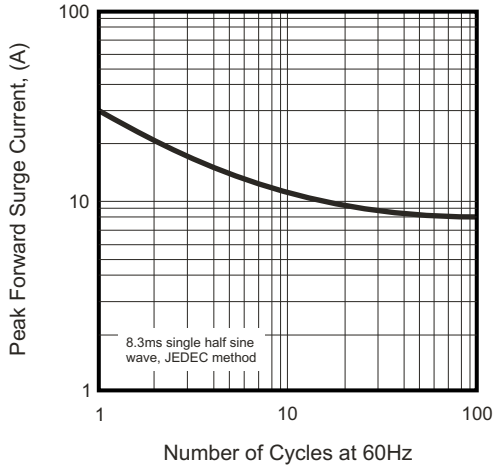


Fig.3 - Typical Instantaneous Forward Characteristics

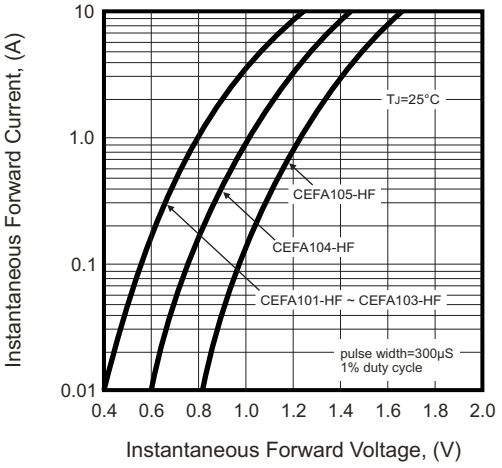


Fig.4 - Typical Reverse Characteristics

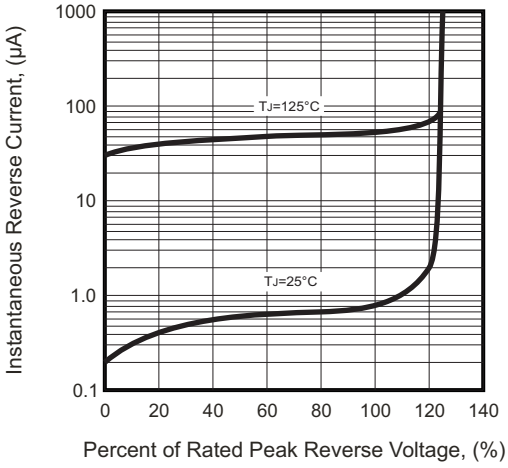
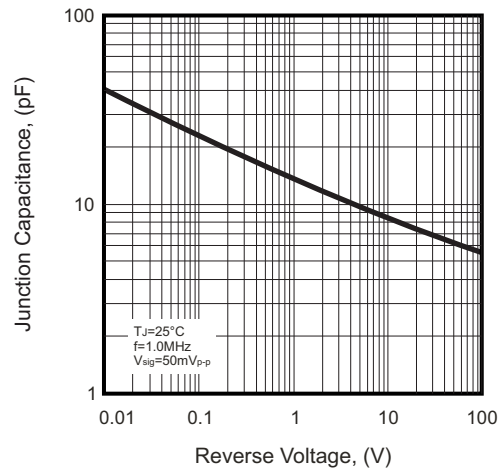
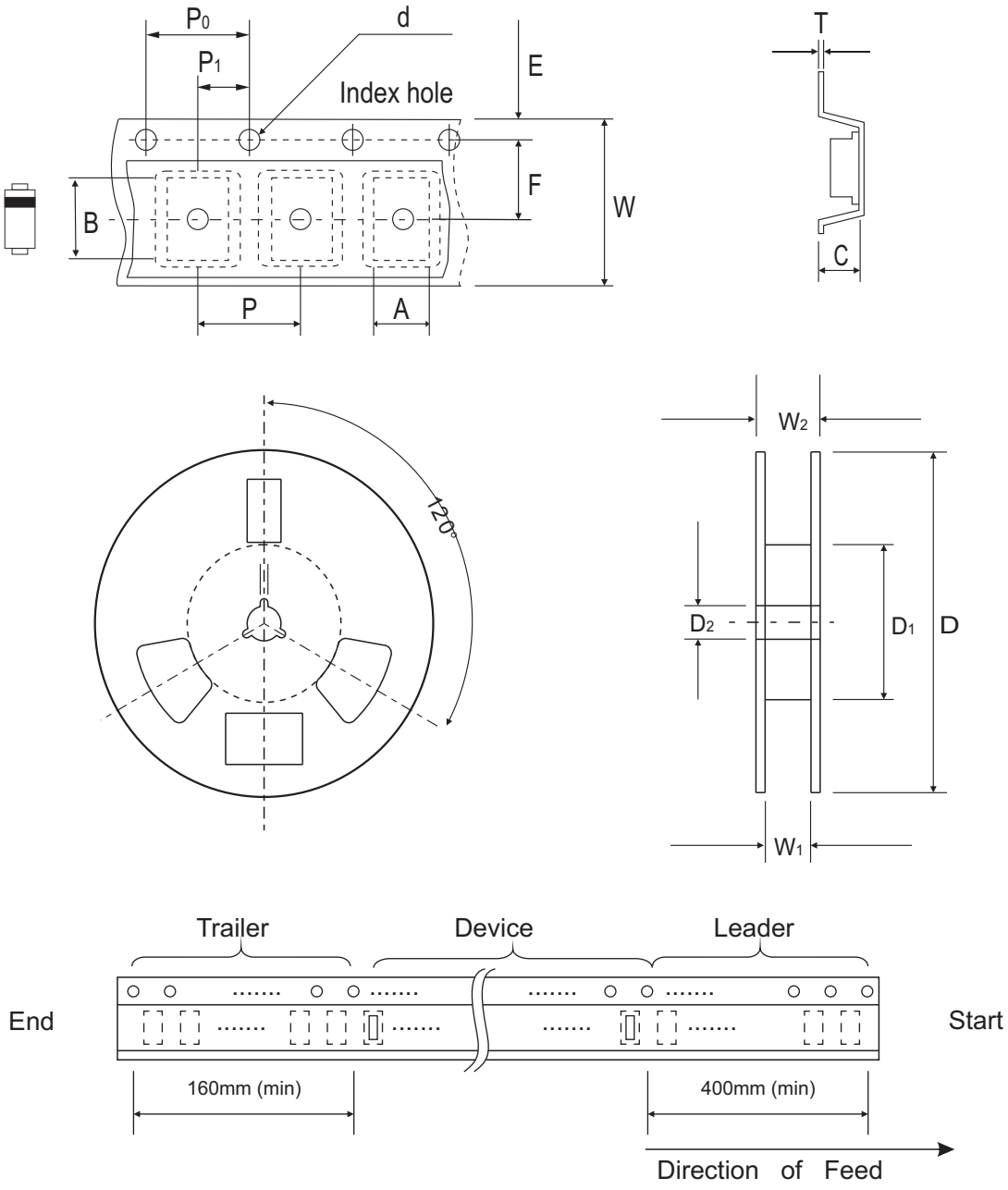


Fig.5 - Typical Junction Capacitance



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

Reel Taping Specification



	SYMBOL	A	B	C	d	T	D	D_1	D_2
DO-214AC (SMA)	(mm)	3.10	5.90	2.36	1.55	0.25	330.0	54.00	13.50
	(inch)	0.122	0.232	0.093	0.061	0.010	13.00	2.126	0.531

	SYMBOL	E	F	P	P_0	P_1	W	W_1	W_2
DO-214AC (SMA)	(mm)	1.75	5.50	4.00	4.00	2.00	12.00	13.50	18.40
	(inch)	0.069	0.217	0.157	0.157	0.079	0.472	0.531	0.724

Note: The tolerance of carrier tape and top cover is 0.2mm, the tolerance of reel is 2mm.

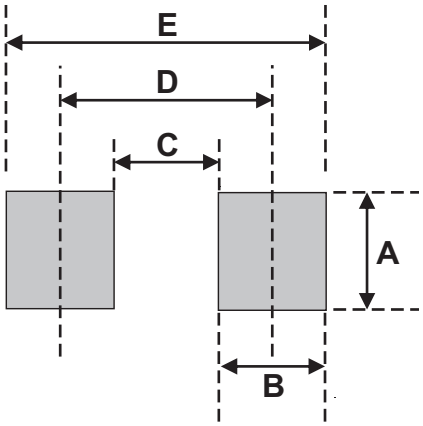
Marking Code

Part Number	Marking Code
CEFA101-HF	ES1A
CEFA102-HF	ES1B
CEFA103-HF	ES1D
CEFA104-HF	ES1G
CEFA105-HF	ES1J

XXXX = Product type marking code

Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	1.70	0.067
B	2.50	0.098
C	1.50	0.059
D	4.10	0.161
E	6.60	0.260



Note:

1.The pad layout is for reference purposes only.

Standard Packaging

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