

Compliance

- IEC 61000-4-2 ESD (Min. Level 4)
- IEC 61000-4-4 EFT
- IEC 61000-4-5 Surge

CD214L Transient Voltage Suppressor Diode Series

BOURNS®

Electrical Characteristics (@T_A = 25 °C unless otherwise noted)

Unidirectional Device		Bidirectional Device		Breakdown Voltage V _{BR} (Volts)			Working Peak Reverse Voltage V _{RWM} (Volts)	Maximum Reverse Leakage @ V _{RWM} I _R (uA)	Maximum Reverse Voltage @ I _{RSM} V _{RSM} (Volts)	Maximum Reverse Surge Current I _{RSM} (Amps)
Part Number	Part Marking	Part Number	Part Marking	Min.	Max.	@ I _T (mA)				
CD214L-T5.0ALF	HDE	CD214L-T5.0CALF	IDE	6.40	7.82	10	5	1000	9.2	326.00
CD214L-T6.0ALF	HDG	CD214L-T6.0CALF	IDG	6.67	8.15	10	6	1000	10.3	291.30
CD214L-T6.5ALF	HDK	CD214L-T6.5CALF	IDK	7.22	7.98	10	6.5	500	11.2	267.90
CD214L-T7.0ALF	HDM	CD214L-T7.0CALF	IDM	7.78	8.60	10	7	200	12	250.00
CD214L-T7.5ALF	HDP	CD214L-T7.5CALF	IDP	8.33	9.21	1	7.5	100	12.9	232.60
CD214L-T8.0ALF	HDR	CD214L-T8.0CALF	IDR	8.89	9.83	1	8	50	13.6	220.60
CD214L-T8.5ALF	HDT	CD214L-T8.5CALF	IDT	9.44	10.43	1	8.5	25	14.4	208.40
CD214L-T9.0ALF	HDV	CD214L-T9.0CALF	IDV	10.00	11.05	1	9	10	15.4	194.80
CD214L-T10ALF	HDX	CD214L-T10CALF	IDX	11.10	12.27	1	10	5	17	176.40
CD214L-T11ALF	HDZ	CD214L-T11CALF	IDZ	12.20	13.50	1	11	5	18.2	164.80
CD214L-T12ALF	HEE	CD214L-T12CALF	IEE	13.30	14.70	1	12	5	19.9	150.60
CD214L-T13ALF	HEG	CD214L-T13CALF	IEG	14.40	15.90	1	13	5	21.5	139.40
CD214L-T14ALF	HEK	CD214L-T14CALF	IEK	15.60	17.20	1	14	5	23.2	129.40
CD214L-T15ALF	HEM	CD214L-T15CALF	IEM	16.70	18.50	1	15	5	24.4	123.00
CD214L-T16ALF	HEP	CD214L-T16CALF	IEP	17.80	19.70	1	16	5	26	115.40
CD214L-T17ALF	HER	CD214L-T17CALF	IER	18.90	20.90	1	17	5	27.6	106.60
CD214L-T18ALF	HET	CD214L-T18CALF	IET	20.00	22.10	1	18	5	29.2	102.80
CD214L-T20ALF	HEV	CD214L-T20CALF	IEV	22.20	24.50	1	20	5	32.4	92.60
CD214L-T22ALF	HEX	CD214L-T22CALF	IEX	24.40	27.00	1	22	5	35.5	84.40
CD214L-T24ALF	HEZ	CD214L-T24CALF	IEZ	26.70	29.50	1	24	5	38.9	77.20
CD214L-T26ALF	HFE	CD214L-T26CALF	IFE	28.90	31.90	1	26	5	42.1	71.20
CD214L-T28ALF	HFG	CD214L-T28CALF	IFG	31.10	34.40	1	28	5	45.4	66.00
CD214L-T30ALF	HFK	CD214L-T30CALF	IFK	33.30	36.80	1	30	5	48.4	62.00
CD214L-T33ALF	HFM	CD214L-T33CALF	IFM	36.70	40.60	1	33	5	53.3	56.20
CD214L-T36ALF	HFP	CD214L-T36CALF	IFP	40.00	44.20	1	36	5	58.1	51.60
CD214L-T40ALF	HFR	CD214L-T40CALF	IFR	44.40	49.10	1	40	5	64.5	46.40
CD214L-T43ALF	HFT	CD214L-T43CALF	IFT	47.80	52.80	1	43	5	69.4	43.20
CD214L-T45ALF	HFV	CD214L-T45CALF	IFV	50.00	55.30	1	45	5	72.7	41.20
CD214L-T48ALF	HFX	CD214L-T48CALF	IFX	53.30	58.90	1	48	5	77.4	38.80
CD214L-T51ALF	HFZ	CD214L-T51CALF	IFZ	56.70	62.70	1	51	5	82.4	36.40
CD214L-T54ALF	HGE	CD214L-T54CALF	IGE	60.00	66.30	1	54	5	87.1	34.40
CD214L-T58ALF	HGG	CD214L-T58CALF	IGG	64.40	71.20	1	58	5	93.6	32.00
CD214L-T60ALF	HGK	CD214L-T60CALF	IGK	66.70	73.70	1	60	5	96.8	31.00
CD214L-T64ALF	HGM	CD214L-T64CALF	IGM	71.10	78.60	1	64	5	103	29.20
CD214L-T70ALF	HGP	CD214L-T70CALF	IGP	77.80	86.00	1	70	5	113	26.60
CD214L-T75ALF	HGR	CD214L-T75CALF	IGR	83.30	92.10	1	75	5	121	24.80
CD214L-T78ALF	HGT	CD214L-T78CALF	IGT	86.70	95.80	1	78	5	126	22.80
CD214L-T85ALF	HGV	CD214L-T85CALF	IGV	94.40	104.30	1	85	5	137	20.80
CD214L-T90ALF	HGX	CD214L-T90CALF	IGX	100.00	110.50	1	90	5	146	20.60
CD214L-T100ALF	HGZ	CD214L-T100CALF	IGZ	111.00	122.70	1	100	5	162	18.60
CD214L-T110ALF	HHE	CD214L-T110CALF	IHE	122.00	134.80	1	110	5	177	16.80
CD214L-T120ALF	HHG	CD214L-T120CALF	IHG	133.00	147.00	1	120	5	193	15.60
CD214L-T130ALF	HHH	CD214L-T130CALF	IHH	144.00	159.20	1	130	5	209	14.40
CD214L-T150ALF	HHM	CD214L-T150CALF	IHM	167.00	184.60	1	150	5	243	12.40
CD214L-T160ALF	HHP	CD214L-T160CALF	IHP	178.00	196.70	1	160	5	259	11.60
CD214L-T170ALF	HHR	CD214L-T170CALF	IHR	189.00	208.90	1	170	5	275	11.00

Notes:

- Suffix 'A' denotes a 5 % tolerance device.
- Suffix 'CA' denotes a 5 % tolerance bidirectional device.
- For bidirectional devices with a V_R of 10 volts or less, the I_R limit is double.
- For unidirectional devices with a V_F max. of 3.5 V at an I_F of 35 A, 0.5 Sine Wave of 8.3 ms Pulse Width.

Specifications are subject to change without notice.

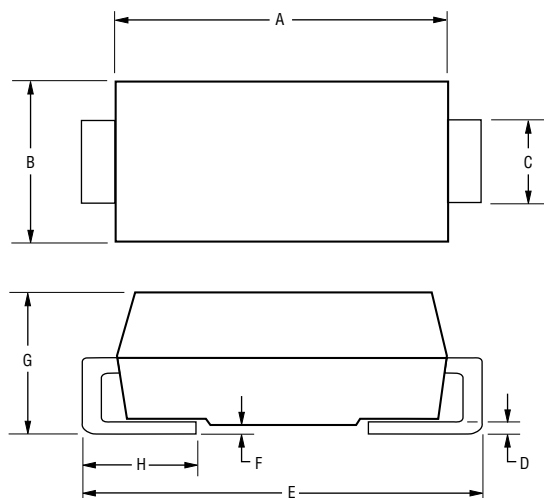
Users should verify actual device performance in their specific applications.

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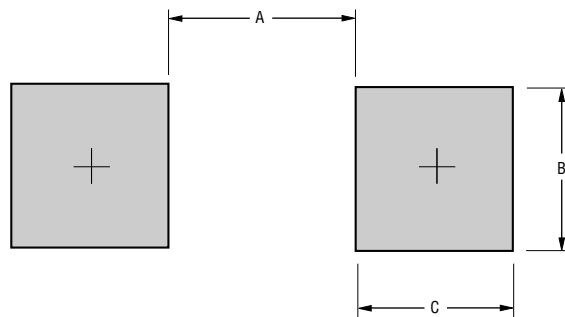
Product Dimensions



Dimension	SMC (DO-214AB)
A	$\frac{6.60 - 7.11}{(0.260 - 0.280)}$
B	$\frac{5.59 - 6.22}{(0.220 - 0.245)}$
C	$\frac{2.92 - 3.18}{(0.115 - 0.125)}$
D	$\frac{0.15 - 0.31}{(0.006 - 0.112)}$
E	$\frac{7.75 - 8.13}{(0.305 - 0.320)}$
F	$\frac{0.05 - 0.20}{(0.002 - 0.008)}$
G	$\frac{2.01 - 2.62}{(0.080 - 0.103)}$
H	$\frac{0.76 - 1.52}{(0.030 - 0.060)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Recommended Pad Layout



Dimension	SMC (DO-214AB)
A (Max.)	$\frac{4.69}{(0.185)}$
B (Min.)	$\frac{3.07}{(0.121)}$
C (Min.)	$\frac{1.52}{(0.060)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Physical Specifications

CaseMolded plastic per UL Class 94V-0
 PolarityCathode band indicates unidirectional device
 No cathode band indicates bidirectional device
 Weight0.007 ounces / 0.21 grams

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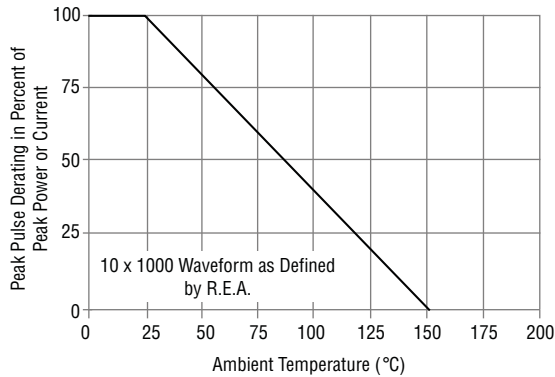
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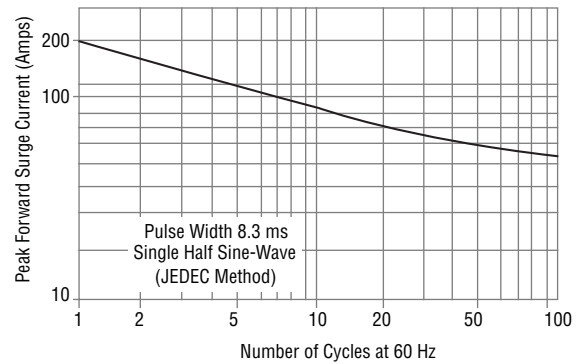
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Rating and Characteristic Curves

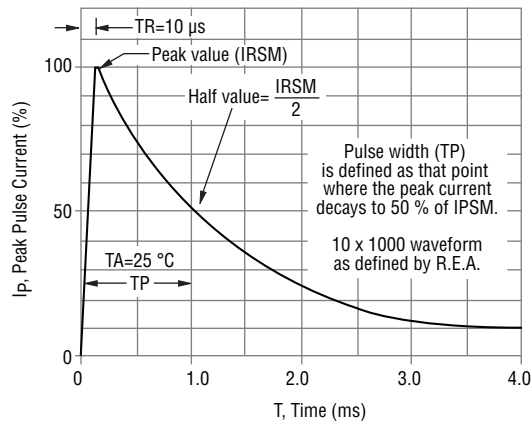
Pulse Derating Curve



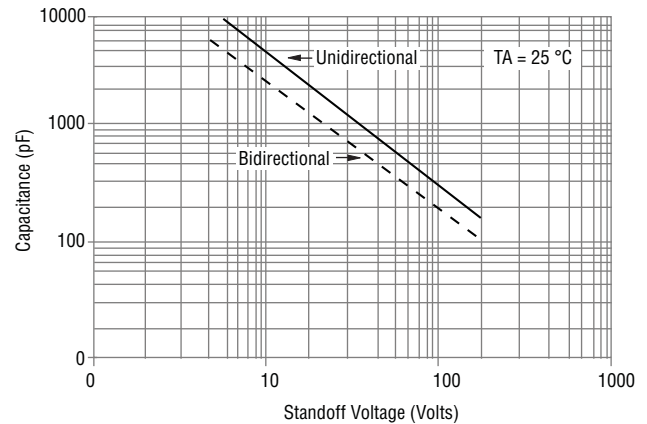
Maximum Non-Repetitive Surge Current



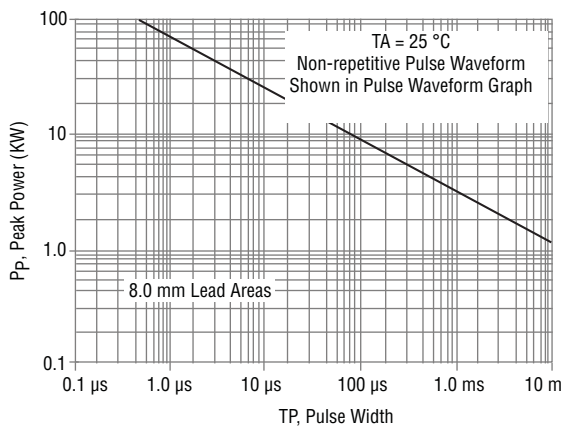
Pulse Waveform



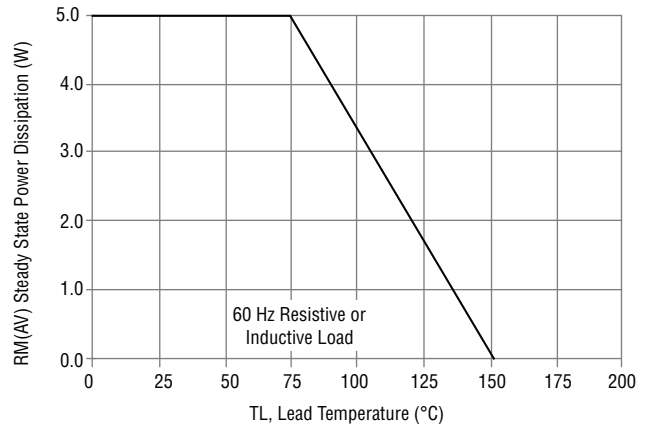
Typical Junction Capacitance



Pulse Rating Curve



Steady State Power Derating Curve



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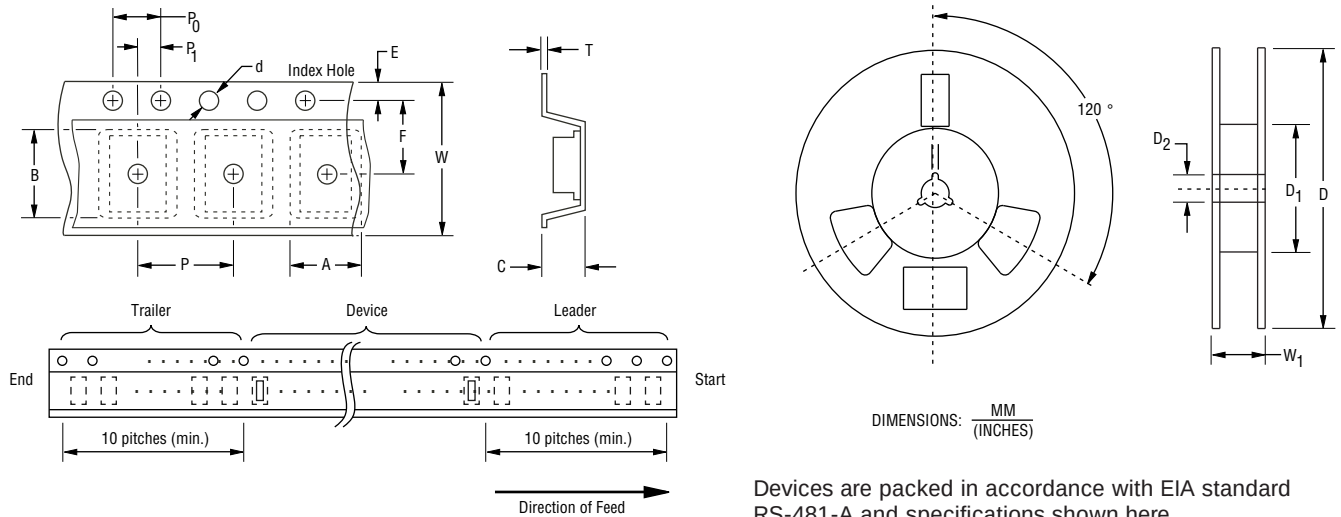
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Packaging Information

The product will be dispensed in Tape and Reel format (see diagram below).



Item	Symbol	SMC (DO-214AB)
Carrier Width	A	$\frac{7.22 \pm 0.10}{(0.284 - 0.004)}$
Carrier Length	B	$\frac{8.11 \pm 0.10}{(0.319 - 0.004)}$
Carrier Depth	C	$\frac{2.36 \pm 0.10}{(0.093 - 0.004)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 - 0.002)}$
Reel Outside Diameter	D	$\frac{330}{(12.992)}$
Reel Inner Diameter	D ₁	$\frac{50.0}{(1.969)}$ MIN.
Feed Hole Diameter	D ₂	$\frac{13.0 \pm 0.20}{(0.512 - 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 - 0.004)}$
Punch Hole Position	F	$\frac{7.50 \pm 0.10}{(0.295 - 0.004)}$
Punch Hole Pitch	P	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.10}{(0.079 - 0.004)}$
Overall Tape Thickness	T	$\frac{0.30 \pm 0.10}{(0.012 - 0.004)}$
Tape Width	W	$\frac{16.00 \pm 0.20}{(0.630 - 0.008)}$
Reel Width	W ₁	$\frac{22.4}{(0.882)}$ MAX.
Quantity per Reel	--	3,000

REV. 09/19

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