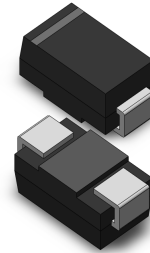


VOLTAGE RANGE: 5.0 - 170V
POWER: 400Watts

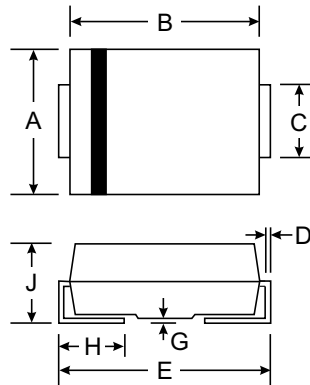
Features

- Lead free versions available
- RoHS compliant (lead free version)*
- Surface Mount SMA package
- Standoff Voltage: 5.0 to 170 volts
- Power Dissipation: 400 watts



Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Minimum Peak Pulse Power Dissipation ($T_P = 1 \text{ ms}$) ^(Note 1,2)	P_{PK}	400	Watts
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) ^(Note 3)	I_{FSM}	40	Amps
Steady State Power Dissipation @ $T_L = 75^\circ\text{C}$	$P_{M(AV)}$	1.0	Watts
Maximum Instantaneous Forward Voltage @ $I_{PP} = 35 \text{ A}$ (For Unidirectional Units Only)	V_F	3.5	Volts
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$

1. Non-repetitive current pulse, per Pulse Waveform graph and derated above $T_A = 25^\circ\text{C}$ per Pulse Derating Curve.
2. Thermal Resistance Junction to Lead.
3. 8.3 ms Single Half-Sine Wave duty cycle = 4 pulses maximum per minute (unidirectional units only).
4. Single Phase, Half Wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20 %.



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

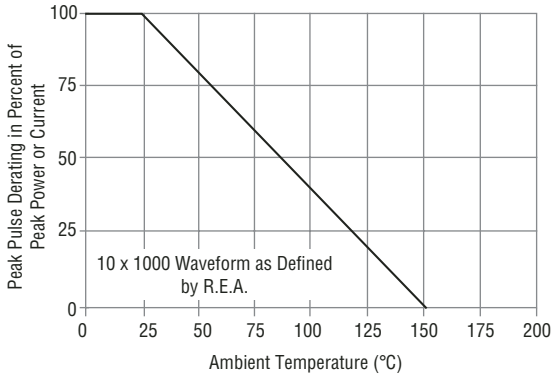
Unidirectional Device		Bidirectional Device		Breakdown Voltage V _{BR} (Volts)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V _{RWM}	Maximum Reverse Voltage @ I _{RSM}	Maximum Reverse Surge Current
Part Number	Part Marking	Part Number	Part Marking	Min.	Max.	@ I _T (mA)	V _{RWM} (Volts)	I _R (uA)	V _{RSM} (Volts)	I _{RSM} (Amps)
				CD214A-T5.0A	HE	CD214A-T5.0CA				
CD214A-T6.0A	HG	CD214A-T6.0CA	TG	6.67	7.37	10	6.0	800 / 1600	10.3	38.8
CD214A-T6.5A	HK	CD214A-T6.5CA	TK	7.22	7.98	10	6.5	500 / 1000	11.2	35.7
CD214A-T7.0A	HM	CD214A-T7.0CA	TM	7.78	8.60	10	7.0	200 / 400	12.0	33.3
CD214A-T7.5A	HP	CD214A-T7.5CA	TP	8.33	9.21	1.0	7.5	100 / 200	12.9	31.0
CD214A-T8.0A	HR	CD214A-T8.0CA	TR	8.89	9.83	1.0	8.0	50 / 100	13.6	29.4
CD214A-T8.5A	HT	CD214A-T8.5CA	TT	9.44	10.4	1.0	8.5	10 / 20	14.4	27.7
CD214A-T9.0A	HV	CD214A-T9.0CA	TV	10.0	11.1	1.0	9.0	5 / 10	15.4	26.0
CD214A-T10A	HX	CD214A-T10CA	TX	11.1	12.3	1.0	10	5 / 10	17.0	23.5
CD214A-T11A	HZ	CD214A-T11CA	TZ	12.2	13.2	1.0	11	5.0	18.2	22.0
CD214A-T12A	IE	CD214A-T12CA	UE	13.3	14.7	1.0	12	5.0	19.9	20.1
CD214A-T13A	IG	CD214A-T13CA	UG	14.4	15.9	1.0	13	5.0	21.5	18.6
CD214A-T14A	IK	CD214A-T14CA	UK	15.6	17.2	1.0	14	5.0	23.2	17.2
CD214A-T15A	IM	CD214A-T15CA	UM	16.7	18.5	1.0	15	5.0	24.4	16.4
CD214A-T16A	IP	CD214A-T16CA	UP	17.8	19.7	1.0	16	5.0	26.0	15.3
CD214A-T17A	IR	CD214A-T17CA	UR	18.9	20.9	1.0	17	5.0	27.6	14.5
CD214A-T18A	IT	CD214A-T18CA	UT	20.0	22.1	1.0	18	5.0	29.2	13.7
CD214A-T20A	IV	CD214A-T20CA	UV	22.2	24.5	1.0	20	5.0	32.4	12.3
CD214A-T22A	IX	CD214A-T22CA	UX	24.4	26.9	1.0	22	5.0	35.5	11.2
CD214A-T24A	IZ	CD214A-T24CA	UZ	26.7	29.5	1.0	24	5.0	38.9	10.3
CD214A-T26A	JE	CD214A-T26CA	VE	28.9	31.9	1.0	26	5.0	42.1	9.5
CD214A-T28A	JG	CD214A-T28CA	VG	31.1	34.4	1.0	28	5.0	45.4	8.8
CD214A-T30A	JK	CD214A-T30CA	VK	33.3	36.8	1.0	30	5.0	48.4	8.3
CD214A-T33A	JM	CD214A-T33CA	VM	36.7	40.6	1.0	33	5.0	53.3	7.5
CD214A-T36A	JP	CD214A-T36CA	VP	40	44.2	1.0	36	5.0	58.1	6.9
CD214A-T40A	JR	CD214A-T40CA	VR	44.4	49.1	1.0	40	5.0	64.5	6.2
CD214A-T43A	JT	CD214A-T43CA	VT	47.8	52.8	1.0	43	5.0	69.4	5.7
CD214A-T45A	JV	CD214A-T45CA	VV	50	55.3	1.0	45	5.0	72.7	5.5
CD214A-T48A	JX	CD214A-T48CA	VX	53.3	58.9	1.0	48	5.0	77.4	5.2
CD214A-T51A	JZ	CD214A-T51CA	VZ	56.7	62.7	1.0	51	5.0	82.4	4.9
CD214A-T54A	RE	CD214A-T54CA	WE	60	66.3	1.0	54	5.0	87.1	4.6
CD214A-T58A	RG	CD214A-T58CA	WG	64.4	71.2	1.0	58	5.0	93.6	4.3
CD214A-T60A	RK	CD214A-T60CA	WK	66.7	73.7	1.0	60	5.0	96.8	4.1
CD214A-T64A	RM	CD214A-T64CA	WM	71.1	78.6	1.0	64	5.0	103	3.9
CD214A-T70A	RP	CD214A-T70CA	WP	77.8	86.0	1.0	70	5.0	113	3.5
CD214A-T75A	RR	CD214A-T75CA	WR	83.3	92.1	1.0	75	5.0	121	3.3
CD214A-T78A	RT	CD214A-T78CA	WT	86.7	95.8	1.0	78	5.0	126	3.2
CD214A-T85A	RV	CD214A-T85CA	VV	94.4	104	1.0	85	5.0	137	2.9
CD214A-T90A	RX	CD214A-T90CA	WX	100	111	1.0	90	5.0	146	2.7
CD214A-T100A	RZ	CD214A-T100CA	WZ	111	123	1.0	100	5.0	162	2.5
CD214A-T110A	SE	CD214A-T110CA	XE	122	135	1.0	110	5.0	177	2.3
CD214A-T120A	SG	CD214A-T120CA	XG	133	147	1.0	120	5.0	193	2.0
CD214A-T130A	SK	CD214A-T130CA	XK	144	159	1.0	130	5.0	209	1.9
CD214A-T150A	SM	CD214A-T150CA	XM	167	185	1.0	150	5.0	243	1.6
CD214A-T160A	SP	CD214A-T160CA	XP	178	197	1.0	160	5.0	259	1.5
CD214A-T170A	SR	CD214A-T170CA	XR	189	209	1.0	170	5.0	275	1.4

- 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.

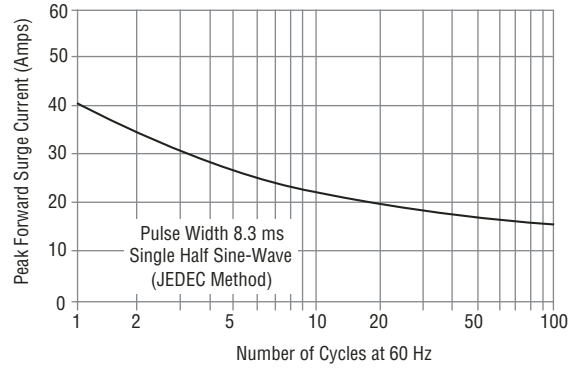


Rating and Characteristic Curves

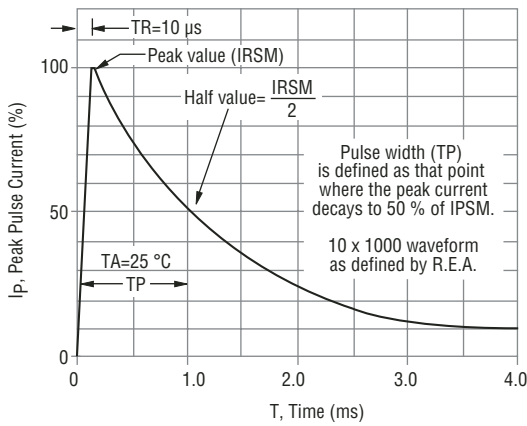
Pulse Derating Curve



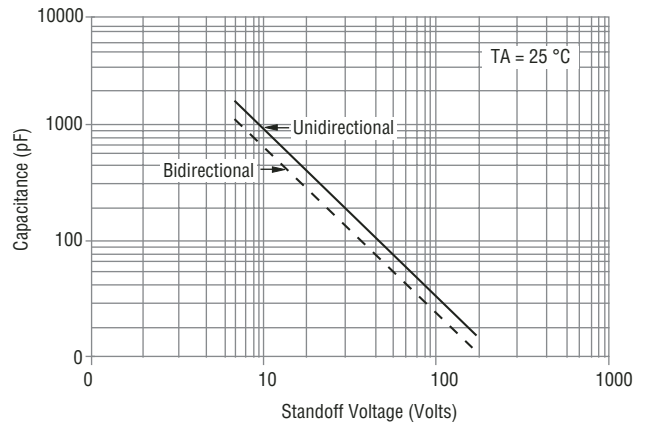
Maximum Non-Repetitive Surge Current



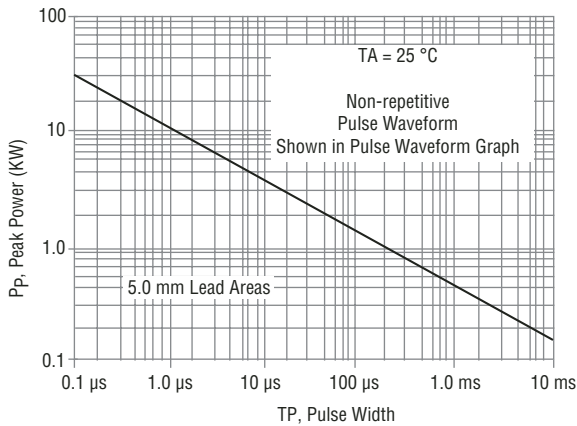
Pulse Waveform



Typical Junction Capacitance



Pulse Rating Curve



Steady State Power Derating Curve

