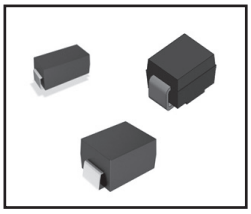
NDTV Series
SMD Transient Voltage Suppressors

ROHS/REACH COMPLIANT HALOGEN FREE

NIC COMPONENTS Performance Passives By Design

FEATURES
- MINIATURE SMA, SMB & SMC CASE SIZES
- OPERATING VOLTAGES 5.0 ~ 75VDC
- PEAK PULSE POWER FROM 400W ~ 5000W
- QUICK RESPONSE & LOW CLAMPING VOLTAGE
- REFLOW SOLDERING APPLICABLE
- TAPE & REEL PACKAGING FOR AUTOMATIC PICK-PLACE



Specifications	Case Code		
	SMA (DO-214AC)	SMB (DO-214AA)	SMC (DO-214AB)
Operating Voltage Range (V_R)	5.0 ~75VDC	5.0 ~ 75VDC	5.0 ~ 75VDC
Operating Junction Temperature Range (T_J)	-55°C ~ +150°C		
Peak Power (I_{PP} @ 10/1000μS)	400W	up to 1000W	up to 5000W
Reverse Leakage Current (I_{DRM})	800μA max.		
Reverse Breakdown Voltage (V_{BR})	7.0 ~ 92.1VDC	7.0 ~ 92.1VDC	7.0 ~ 92.1VDC

ENVIRONMENTAL CHARACTERISTICS

Test	Specifications	Test Method & Condition
High Temperature Reverse Bias	V_R, V_{BR}, V_{DRM}, I_R and Vc will be within specified limits.	Temperature: 150°C ±3°C, Bias = 80% V_{DRM} Duration: 168 hours
High Temperature Load Life		Temperature: 150°C ±3°C Duration: 168 hours
High & Low Temperature		10 cycles, 30 minute dwell time -40°C ~ +125°C
High Temperature & High Humidity		Temperature: +85°C Relative Humidity: 85% Duration: 168 hours
Pressure Cooker Test		Temperature: +121°C Relative Humidity: 100% Pressure: 2 atm Duration: 24 hours
Resistance to Soldering Heat		Temperature: +260°C ±5°C

PART NUMBER SYSTEM

NDTV 30V B 400 A TR F

- F — Pb-free/RoHS compliant
- TR — Taped & Reeled
- A — Case Size Code (A = SMA)
- 400 — Power Dissipation (10/1000μS Watts)
- B — B = Bi-directional, U = Uni-directional
- 30V — Working Voltage (VDC)
- NDTV — Series

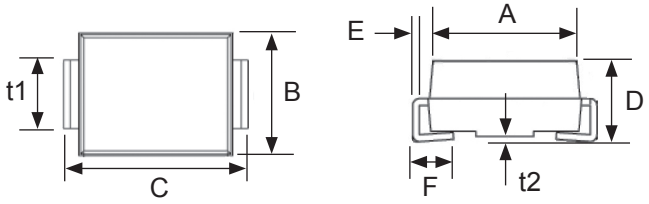
NDTV Series
SMD Transient Voltage Suppressors

ROHS/REACH COMPLIANT HALOGEN FREE

NIC COMPONENTS Performance Passives By Design

COMPONENT DIMENSIONS (mm):

Case Size		A	B	C	D	E	F	t1	t2
SMA	DO-214AC	3.99 - 4.65	2.55 - 2.90	4.75 - 5.28	1.98 - 2.50	0.15 - 0.31	0.76 - 1.55	1.25 - 1.65	0.10 - 0.40
SMB	DO-214AA	4.35 - 4.65	3.45 - 3.75	4.95 - 5.45	2.10 - 2.60	0.15 - 0.25	0.80 - 1.50	1.85 - 2.15	0.00 - 0.40
SMC	DO-214AB	6.75 - 7.05	5.85 - 6.15	7.75 - 8.25	2.45 - 2.95	0.15 - 0.25	0.90 - 1.60	2.85 - 3.20	0.00 - 0.40



MARKING EXAMPLES

Part Numbers	Marking	Description
NDTV33VB400ATRF	A33C	SMA, 33 volt, Bi-directional
NDTV36VU600BTRF	B36	SMB, 36 volt, Uni-directional
NDTV15VB1500CTRF	C15C	SMC, 15 volt, Bi-directional
NDTV40VB3000CTRF	D40C	SMC, 40 volt, Bi-directional
NDTV58VB5000CTRF	5D58C	SMC, 58 volt, Bi-directional

Bi-Directional Circuit

Uni-Directional Circuit

NDTV STANDARD VALUES AND SPECIFICATIONS

NIC P/N		Voltage Rating V_R (V)	I_{DRM} (µA)	Breakdown Voltage V_{BR} (V)		I_T (mA)	Clamping Voltage @ I_{PP} 10/1000µS V_C (V)	I_{PP} (A)	Peak Power I_{PP} (W)	Case Size
Bi-directional	Uni-Directional			min.	max.					
NDTV5VB400ATRF	NDTV5VU400ATRF	5.0	800	6.40	7.00	10	9.2	43.5	400	SMA
NDTV6VB400ATRF	NDTV6VU400ATRF	6.0	800	6.67	7.37	10	10.3	38.8	400	SMA
NDTV6.5VB400ATRF	NDTV6.5VU400ATRF	6.5	500	7.22	7.98	10	11.2	35.7	400	SMA
NDTV7VB400ATRF	NDTV7VU400ATRF	7.0	200	7.78	8.60	10	12.0	33.3	400	SMA
NDTV7.5VB400ATRF	NDTV7.5VU400ATRF	7.5	100	8.33	9.21	1	12.9	31.0	400	SMA
NDTV8VB400ATRF	NDTV8VU400ATRF	8.0	50	8.89	9.83	1	13.6	29.4	400	SMA
NDTV8.5VB400ATRF	NDTV8.5VU400ATRF	8.5	20	9.44	10.4	1	14.4	27.8	400	SMA
NDTV9VB400ATRF	NDTV9VU400ATRF	9.0	10	10.0	11.1	1	15.4	26.0	400	SMA
NDTV10VB400ATRF	NDTV10VU400ATRF	10	5	11.1	12.3	1	17.0	23.5	400	SMA
NDTV11VB400ATRF	NDTV11VU400ATRF	11	1	12.2	13.5	1	18.2	22.0	400	SMA
NDTV12VB400ATRF	NDTV12VU400ATRF	12	1	13.3	14.7	1	19.9	20.1	400	SMA
NDTV13VB400ATRF	NDTV13VU400ATRF	13	1	14.4	15.9	1	21.5	18.6	400	SMA
NDTV14VB400ATRF	NDTV14VU400ATRF	14	1	15.6	17.2	1	23.2	17.2	400	SMA
NDTV15VB400ATRF	NDTV15VU400ATRF	15	1	16.7	18.5	1	24.4	16.4	400	SMA
NDTV16VB400ATRF	NDTV16VU400ATRF	16	1	17.8	19.7	1	26.0	15.4	400	SMA

continue on next page

NDTV Series
SMD Transient Voltage Suppressors

ROHS/REACH COMPLIANT HALOGEN FREE

COMPONENTS
Performance Passives By Design

NDTV STANDARD VALUES AND SPECIFICATIONS

NIC P/N		Voltage Rating V_R (V)	I_{DRM} (μA)	Breakdown Voltage V_{BR} (V)		I_T (mA)	Clamping Voltage @ I_{PP} 10/1000μS V_C (V)	I_{PP} (A)	Peak Power I_{PP} (W)	Case Size
Bi-directional	Uni-Directional			min.	max.					
NDTV17VB400ATRF	NDTV17VU400ATRF	17	1	18.9	20.9	1	27.6	14.5	400	SMA
NDTV18VB400ATRF	NDTV18VU400ATRF	18	1	20.0	22.1	1	29.2	13.7	400	SMA
NDTV20VB400ATRF	NDTV20VU400ATRF	20	1	22.2	24.5	1	32.4	12.3	400	SMA
NDTV22VB400ATRF	NDTV22VU400ATRF	22	1	24.4	26.9	1	35.5	11.3	400	SMA
NDTV24VB400ATRF	NDTV24VU400ATRF	24	1	26.7	29.5	1	38.9	10.3	400	SMA
NDTV26VB400ATRF	NDTV26VU400ATRF	26	1	28.9	31.9	1	42.1	9.5	400	SMA
NDTV28VB400ATRF	NDTV28VU400ATRF	28	1	31.1	34.4	1	45.4	8.8	400	SMA
NDTV30VB400ATRF	NDTV30VU400ATRF	30	1	33.3	36.8	1	48.4	8.3	400	SMA
NDTV33VB400ATRF	NDTV33VU400ATRF	33	1	36.7	40.6	1	53.3	7.5	400	SMA
NDTV36VB400ATRF	NDTV36VU400ATRF	36	1	40.0	44.2	1	58.1	6.9	400	SMA
NDTV40VB400ATRF	NDTV40VU400ATRF	40	1	44.4	49.1	1	64.5	6.2	400	SMA
NDTV43VB400ATRF	NDTV43VU400ATRF	43	1	47.8	52.8	1	69.4	5.8	400	SMA
NDTV45VB400ATRF	NDTV45VU400ATRF	45	1	50.0	55.3	1	72.7	5.5	400	SMA
NDTV48VB400ATRF	NDTV48VU400ATRF	48	1	53.3	58.9	1	77.4	5.2	400	SMA
NDTV51VB400ATRF	NDTV51VU400ATRF	51	1	56.7	62.7	1	82.4	4.9	400	SMA
NDTV54VB400ATRF	NDTV54VU400ATRF	54	1	60.0	66.3	1	87.1	4.6	400	SMA
NDTV58VB400ATRF	NDTV58VU400ATRF	58	1	64.4	71.2	1	93.6	4.3	400	SMA
NDTV60VB400ATRF	NDTV60VU400ATRF	60	1	66.7	73.7	1	96.8	4.1	400	SMA
NDTV64VB400ATRF	NDTV64VU400ATRF	64	1	71.1	78.6	1	103	3.9	400	SMA
NDTV70VB400ATRF	NDTV70VU400ATRF	70	1	77.8	86.0	1	113	3.5	400	SMA
NDTV75VB400ATRF	NDTV75VU400ATRF	75	1	83.3	92.1	1	121	3.3	400	SMA
NDTV5VB600BTRF	NDTV5VU600BTRF	5.0	800	6.40	7.00	10	9.2	65.3	600	SMB
NDTV6VB600BTRF	NDTV6VU600BTRF	6.0	800	6.67	7.37	10	10.3	58.3	600	SMB
NDTV6.5VB600BTRF	NDTV6.5VU600BTRF	6.5	500	7.22	7.98	10	11.2	53.6	600	SMB
NDTV7VB600BTRF	NDTV7VU600BTRF	7.0	200	7.78	8.60	10	12.0	50.0	600	SMB
NDTV7.5VB600BTRF	NDTV7.5VU600BTRF	7.5	100	8.33	9.21	1	12.9	46.6	600	SMB
NDTV8VB600BTRF	NDTV8VU600BTRF	8.0	50	8.89	9.83	1	13.6	44.2	600	SMB
NDTV8.5VB600BTRF	NDTV8.5VU600BTRF	8.5	20	9.44	10.4	1	14.4	41.7	600	SMB
NDTV9VB600BTRF	NDTV9VU600BTRF	9.0	10	10.0	11.1	1	15.4	39.0	600	SMB
NDTV10VB600BTRF	NDTV10VU600BTRF	10	5	11.1	12.3	1	17.0	35.3	600	SMB
NDTV11VB600BTRF	NDTV11VU600BTRF	11	1	12.2	13.5	1	18.2	33.0	600	SMB
NDTV12VB600BTRF	NDTV12VU600BTRF	12	1	13.3	14.7	1	19.9	30.2	600	SMB
NDTV13VB600BTRF	NDTV13VU600BTRF	13	1	14.4	15.9	1	21.5	28.0	600	SMB
NDTV14VB600BTRF	NDTV14VU600BTRF	14	1	15.6	17.2	1	23.2	25.9	600	SMB
NDTV15VB600BTRF	NDTV15VU600BTRF	15	1	16.7	18.5	1	24.4	24.6	600	SMB
NDTV16VB600BTRF	NDTV16VU600BTRF	16	1	17.8	19.7	1	26.0	23.1	600	SMB
NDTV17VB600BTRF	NDTV17VU600BTRF	17	1	18.9	20.9	1	27.6	21.8	600	SMB
NDTV18VB600BTRF	NDTV18VU600BTRF	18	1	20.0	22.1	1	29.2	20.6	600	SMB
NDTV20VB600BTRF	NDTV20VU600BTRF	20	1	22.2	24.5	1	32.4	18.6	600	SMB

continue on next page

NDTV Series
SMD Transient Voltage Suppressors

ROHS/REACH COMPLIANT HALOGEN FREE

NIC COMPONENTS Performance Passives By Design

NDTV STANDARD VALUES AND SPECIFICATIONS

NIC P/N		Voltage Rating V_R (V)	I_{DRM} (µA)	Breakdown Voltage V_{BR} (V)		I_T (mA)	Clamping Voltage @ I_{PP} 10/1000µS V_C (V)	I_{PP} (A)	Peak Power I_{PP} (W)	Case Size
Bi-directional	Uni-Directional			min.	max.					
NDTV22VB600BTRF	NDTV22VU600BTRF	22	1	24.4	26.9	1	35.5	16.9	600	SMB
NDTV24VB600BTRF	NDTV24VU600BTRF	24	1	26.7	29.5	1	38.9	15.5	600	SMB
NDTV26VB600BTRF	NDTV26VU600BTRF	26	1	28.9	31.9	1	42.1	14.3	600	SMB
NDTV28VB600BTRF	NDTV28VU600BTRF	28	1	31.1	34.4	1	45.4	13.3	600	SMB
NDTV30VB600BTRF	NDTV30VU600BTRF	30	1	33.3	36.8	1	48.4	12.4	600	SMB
NDTV33VB600BTRF	NDTV33VU600BTRF	33	1	36.7	40.6	1	53.3	11.3	600	SMB
NDTV36VB600BTRF	NDTV36VU600BTRF	36	1	40.0	44.2	1	58.1	10.4	600	SMB
NDTV40VB600BTRF	NDTV40VU600BTRF	40	1	44.4	49.1	1	64.5	9.3	600	SMB
NDTV43VB600BTRF	NDTV43VU600BTRF	43	1	47.8	52.8	1	69.4	8.7	600	SMB
NDTV45VB600BTRF	NDTV45VU600BTRF	45	1	50.0	55.3	1	72.7	8.3	600	SMB
NDTV48VB600BTRF	NDTV48VU600BTRF	48	1	53.3	58.9	1	77.4	7.8	600	SMB
NDTV51VB600BTRF	NDTV51VU600BTRF	51	1	56.7	62.7	1	82.4	7.3	600	SMB
NDTV54VB600BTRF	NDTV54VU600BTRF	54	1	60.0	66.3	1	87.1	6.9	600	SMB
NDTV58VB600BTRF	NDTV58VU600BTRF	58	1	64.4	71.2	1	93.6	6.5	600	SMB
NDTV60VB600BTRF	NDTV60VU600BTRF	60	1	66.7	73.7	1	96.8	6.2	600	SMB
NDTV64VB600BTRF	NDTV64VU600BTRF	64	1	71.1	78.6	1	103	5.9	600	SMB
NDTV70VB600BTRF	NDTV70VU600BTRF	70	1	77.8	86.0	1	113	5.3	600	SMB
NDTV75VB600BTRF	NDTV75VU600BTRF	75	1	83.3	92.1	1	121	5.0	600	SMB
NDTV5VB1500CTRF	NDTV5VU1500CTRF	5.0	800	6.40	7.00	10	9.2	163	1500	SMC
NDTV6VB1500CTRF	NDTV6VU1500CTRF	6.0	800	6.67	7.37	10	10.3	145.7	1500	SMC
NDTV6.5VB1500CTRF	NDTV6.5VU1500CTRF	6.5	500	7.22	7.98	10	11.2	134.0	1500	SMC
NDTV7VB1500CTRF	NDTV7VU1500CTRF	7.0	200	7.78	8.60	10	12.0	125.0	1500	SMC
NDTV7.5VB1500CTRF	NDTV7.5VU1500CTRF	7.5	100	8.33	9.21	1	12.9	116.3	1500	SMC
NDTV8VB1500CTRF	NDTV8VU1500CTRF	8.0	50	8.89	9.83	1	13.6	110.3	1500	SMC
NDTV8.5VB1500CTRF	NDTV8.5VU1500CTRF	8.5	20	9.44	10.4	1	14.4	104.2	1500	SMC
NDTV9VB1500CTRF	NDTV9VU1500CTRF	9.0	10	10.0	11.1	1	15.4	97.4	1500	SMC
NDTV10VB1500CTRF	NDTV10VU1500CTRF	10	5	11.1	12.3	1	17.0	88.3	1500	SMC
NDTV11VB1500CTRF	NDTV11VU1500CTRF	11	1	12.2	13.5	1	18.2	82.5	1500	SMC
NDTV12VB1500CTRF	NDTV12VU1500CTRF	12	1	13.3	14.7	1	19.9	75.4	1500	SMC
NDTV13VB1500CTRF	NDTV13VU1500CTRF	13	1	14.4	15.9	1	21.5	69.8	1500	SMC
NDTV14VB1500CTRF	NDTV14VU1500CTRF	14	1	15.6	17.2	1	23.2	64.7	1500	SMC
NDTV15VB1500CTRF	NDTV15VU1500CTRF	15	1	16.7	18.5	1	24.4	61.5	1500	SMC
NDTV16VB1500CTRF	NDTV16VU1500CTRF	16	1	17.8	19.7	1	26.0	57.7	1500	SMC
NDTV17VB1500CTRF	NDTV17VU1500CTRF	17	1	18.9	20.9	1	27.6	54.4	1500	SMC
NDTV18VB1500CTRF	NDTV18VU1500CTRF	18	1	20.0	22.1	1	29.2	51.4	1500	SMC
NDTV20VB1500CTRF	NDTV20VU1500CTRF	20	1	22.2	24.5	1	32.4	46.3	1500	SMC
NDTV22VB1500CTRF	NDTV22VU1500CTRF	22	1	24.4	26.9	1	35.5	42.3	1500	SMC
NDTV24VB1500CTRF	NDTV24VU1500CTRF	24	1	26.7	29.5	1	38.9	38.6	1500	SMC
NDTV26VB1500CTRF	NDTV26VU1500CTRF	26	1	28.9	31.9	1	42.1	35.7	1500	SMC

continue on next page

NDTV STANDARD VALUES AND SPECIFICATIONS

NIC P/N		Voltage Rating V_R (V)	I_{DRM} (µA)	Breakdown Voltage V_{BR} (V)		I_T (mA)	Clamping Voltage @ I_{PP} 10/1000µS V_C (V)	I_{PP} (A)	Peak Power I_{PP} (W)	Case Size
Bi-directional	Uni-Directional			min.	max.					
NDTV28VB1500CTRF	NDTV28VU1500CTRF	28	1	31.1	34.4	1	45.4	33.1	1500	SMC
NDTV30VB1500CTRF	NDTV30VU1500CTRF	30	1	33.3	36.8	1	48.4	31.0	1500	SMC
NDTV33VB1500CTRF	NDTV33VU1500CTRF	33	1	36.7	40.6	1	53.3	28.2	1500	SMC
NDTV36VB1500CTRF	NDTV36VU1500CTRF	36	1	40.0	44.2	1	58.1	25.9	1500	SMC
NDTV40VB1500CTRF	NDTV40VU1500CTRF	40	1	44.4	49.1	1	64.5	23.3	1500	SMC
NDTV43VB1500CTRF	NDTV43VU1500CTRF	43	1	47.8	52.8	1	69.4	21.7	1500	SMC
NDTV45VB1500CTRF	NDTV45VU1500CTRF	45	1	50.0	55.3	1	72.7	20.6	1500	SMC
NDTV48VB1500CTRF	NDTV48VU1500CTRF	48	1	53.3	58.9	1	77.4	19.4	1500	SMC
NDTV51VB1500CTRF	NDTV51VU1500CTRF	51	1	56.7	62.7	1	82.4	18.2	1500	SMC
NDTV54VB1500CTRF	NDTV54VU1500CTRF	54	1	60.0	66.3	1	87.1	17.3	1500	SMC
NDTV58VB1500CTRF	NDTV58VU1500CTRF	58	1	64.4	71.2	1	93.6	16.1	1500	SMC
NDTV60VB1500CTRF	NDTV60VU1500CTRF	60	1	66.7	73.7	1	96.8	15.5	1500	SMC
NDTV64VB1500CTRF	NDTV64VU1500CTRF	64	1	71.1	78.6	1	103	14.6	1500	SMC
NDTV70VB1500CTRF	NDTV70VU1500CTRF	70	1	77.8	86.0	1	113	13.3	1500	SMC
NDTV75VB1500CTRF	NDTV75VU1500CTRF	75	1	83.3	92.1	1	121	12.4	1500	SMC
NDTV5VB3000CTRF	NDTV5VU3000CTRF	5.0	800	6.40	7.00	10	9.2	326.1	3000	SMC
NDTV6VB3000CTRF	NDTV6VU3000CTRF	6.0	800	6.67	7.37	10	10.3	291.3	3000	SMC
NDTV6.5VB3000CTRF	NDTV6.5VU3000CTRF	6.5	500	7.22	7.98	10	11.2	267.9	3000	SMC
NDTV7VB3000CTRF	NDTV7VU3000CTRF	7.0	200	7.78	8.60	10	12.0	250.0	3000	SMC
NDTV7.5VB3000CTRF	NDTV7.5VU3000CTRF	7.5	100	8.33	9.21	1	12.9	232.6	3000	SMC
NDTV8VB3000CTRF	NDTV8VU3000CTRF	8.0	50	8.89	9.83	1	13.6	220.6	3000	SMC
NDTV8.5VB3000CTRF	NDTV8.5VU3000CTRF	8.5	20	9.44	10.4	1	14.4	208.3	3000	SMC
NDTV9VB3000CTRF	NDTV9VU3000CTRF	9.0	10	10.0	11.1	1	15.4	194.8	3000	SMC
NDTV10VB3000CTRF	NDTV10VU3000CTRF	10	5	11.1	12.3	1	17.0	176.5	3000	SMC
NDTV11VB3000CTRF	NDTV11VU3000CTRF	11	1	12.2	13.5	1	18.2	164.8	3000	SMC
NDTV12VB3000CTRF	NDTV12VU3000CTRF	12	1	13.3	14.7	1	19.9	150.8	3000	SMC
NDTV13VB3000CTRF	NDTV13VU3000CTRF	13	1	14.4	15.9	1	21.5	139.5	3000	SMC
NDTV14VB3000CTRF	NDTV14VU3000CTRF	14	1	15.6	17.2	1	23.2	129.3	3000	SMC
NDTV15VB3000CTRF	NDTV15VU3000CTRF	15	1	16.7	18.5	1	24.4	123.0	3000	SMC
NDTV16VB3000CTRF	NDTV16VU3000CTRF	16	1	17.8	19.7	1	26.0	115.4	3000	SMC
NDTV17VB3000CTRF	NDTV17VU3000CTRF	17	1	18.9	20.9	1	27.6	108.7	3000	SMC
NDTV18VB3000CTRF	NDTV18VU3000CTRF	18	1	20.0	22.1	1	29.2	102.7	3000	SMC
NDTV20VB3000CTRF	NDTV20VU3000CTRF	20	1	22.2	24.5	1	32.4	92.6	3000	SMC
NDTV22VB3000CTRF	NDTV22VU3000CTRF	22	1	24.4	26.9	1	35.5	84.5	3000	SMC
NDTV24VB3000CTRF	NDTV24VU3000CTRF	24	1	26.7	29.5	1	38.9	77.1	3000	SMC
NDTV26VB3000CTRF	NDTV26VU3000CTRF	26	1	28.9	31.9	1	42.1	71.3	3000	SMC
NDTV28VB3000CTRF	NDTV28VU3000CTRF	28	1	31.1	34.4	1	45.4	66.1	3000	SMC
NDTV30VB3000CTRF	NDTV30VU3000CTRF	30	1	33.3	36.8	1	48.4	62.0	3000	SMC
NDTV33VB3000CTRF	NDTV33VU3000CTRF	33	1	36.7	40.6	1	53.3	56.3	3000	SMC

continue on next page

NDTV Series
SMD Transient Voltage Suppressors

ROHS/REACH COMPLIANT HALOGEN FREE

NIC COMPONENTS
Performance Passives By Design

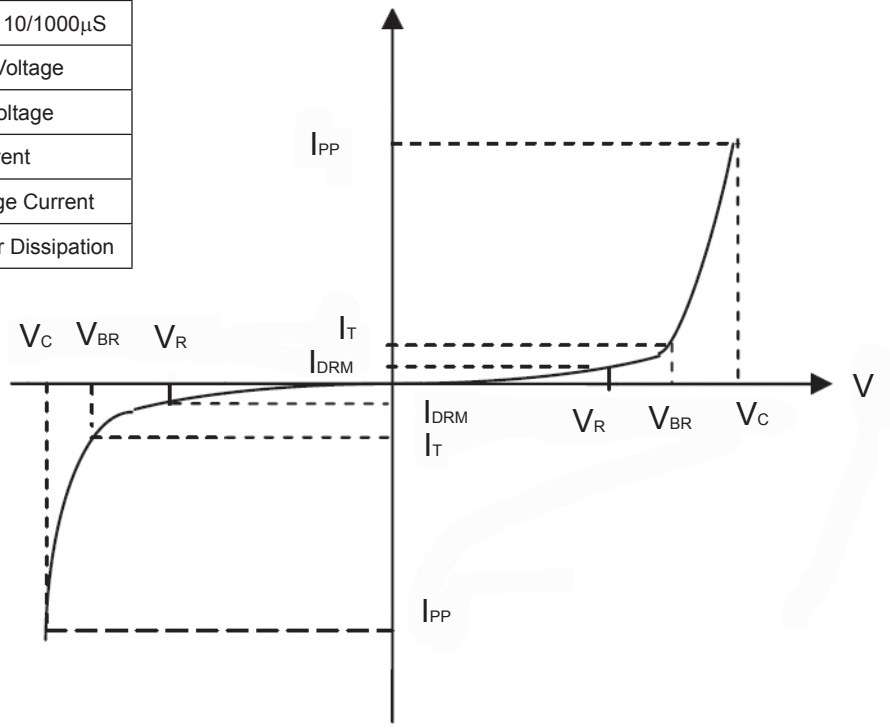
NDTV STANDARD VALUES AND SPECIFICATIONS

NIC P/N		Voltage Rating V_R (V)	I_{DRM} (µA)	Breakdown Voltage V_{BR} (V)		I_T (mA)	Clamping Voltage @ I_{PP} 10/1000µS V_C (V)	I_{PP} (A)	Peak Power I_{PP} (W)	Case Size
Bi-directional	Uni-Directional			min.	max.					
NDTV36VB3000CTRF	NDTV36VU3000CTRF	36	1	40.0	44.2	1	58.1	51.6	3000	SMC
NDTV40VB3000CTRF	NDTV40VU3000CTRF	40	1	44.4	49.1	1	64.5	46.5	3000	SMC
NDTV43VB3000CTRF	NDTV43VU3000CTRF	43	1	47.8	52.8	1	69.4	43.2	3000	SMC
NDTV45VB3000CTRF	NDTV45VU3000CTRF	45	1	50.0	55.3	1	72.7	41.3	3000	SMC
NDTV48VB3000CTRF	NDTV48VU3000CTRF	48	1	53.3	58.9	1	77.4	38.8	3000	SMC
NDTV51VB3000CTRF	NDTV51VU3000CTRF	51	1	56.7	62.7	1	82.4	36.4	3000	SMC
NDTV54VB3000CTRF	NDTV54VU3000CTRF	54	1	60.0	66.3	1	87.1	34.4	3000	SMC
NDTV58VB3000CTRF	NDTV58VU3000CTRF	58	1	64.4	71.2	1	93.6	32.1	3000	SMC
NDTV60VB3000CTRF	NDTV60VU3000CTRF	60	1	66.7	73.7	1	96.8	31	3000	SMC
NDTV64VB3000CTRF	NDTV64VU3000CTRF	64	1	71.1	78.6	1	103	29.1	3000	SMC
NDTV70VB3000CTRF	NDTV70VU3000CTRF	70	1	77.8	86.0	1	113	26.5	3000	SMC
NDTV75VB3000CTRF	NDTV75VU3000CTRF	75	1	83.3	92.1	1	121	24.8	3000	SMC
NDTV11VB5000CTRF	NDTV11VU5000CTRF	11	800	12.2	13.5	1	18.2	275	5000	SMC
NDTV12VB5000CTRF	NDTV12VU5000CTRF	12	800	13.3	14.7	1	19.9	252	5000	SMC
NDTV13VB5000CTRF	NDTV13VU5000CTRF	13	500	14.4	15.9	1	21.5	233	5000	SMC
NDTV14VB5000CTRF	NDTV14VU5000CTRF	14	200	15.6	17.2	1	23.2	216	5000	SMC
NDTV15VB5000CTRF	NDTV15VU5000CTRF	15	100	16.7	18.5	1	24.4	205	5000	SMC
NDTV16VB5000CTRF	NDTV16VU5000CTRF	16	50	17.8	19.7	1	26.0	193	5000	SMC
NDTV17VB5000CTRF	NDTV17VU5000CTRF	17	20	18.9	20.9	1	27.6	181	5000	SMC
NDTV18VB5000CTRF	NDTV18VU5000CTRF	18	10	20.0	22.1	1	29.2	172	5000	SMC
NDTV20VB5000CTRF	NDTV20VU5000CTRF	20	5	22.2	24.5	1	32.4	155	5000	SMC
NDTV22VB5000CTRF	NDTV22VU5000CTRF	22	5	24.4	26.9	1	35.5	141	5000	SMC
NDTV24VB5000CTRF	NDTV24VU5000CTRF	24	2	26.7	29.5	1	38.9	129	5000	SMC
NDTV26VB5000CTRF	NDTV26VU5000CTRF	26	2	28.9	31.9	1	42.1	119	5000	SMC
NDTV28VB5000CTRF	NDTV28VU5000CTRF	28	2	31.1	34.4	1	45.4	110	5000	SMC
NDTV30VB5000CTRF	NDTV30VU5000CTRF	30	2	33.3	36.8	1	48.4	103	5000	SMC
NDTV33VB5000CTRF	NDTV33VU5000CTRF	33	2	36.7	40.6	1	53.3	93.9	5000	SMC
NDTV36VB5000CTRF	NDTV36VU5000CTRF	36	2	40.0	44.2	1	58.1	86.1	5000	SMC
NDTV40VB5000CTRF	NDTV40VU5000CTRF	40	2	44.4	49.1	1	64.5	77.6	5000	SMC
NDTV43VB5000CTRF	NDTV43VU5000CTRF	43	2	47.8	52.8	1	69.4	72.1	5000	SMC
NDTV45VB5000CTRF	NDTV45VU5000CTRF	45	2	50.0	55.3	1	72.7	68.8	5000	SMC
NDTV48VB5000CTRF	NDTV48VU5000CTRF	48	2	53.3	58.9	1	77.4	64.7	5000	SMC
NDTV51VB5000CTRF	NDTV51VU5000CTRF	51	2	56.7	62.7	1	82.4	60.7	5000	SMC
NDTV54VB5000CTRF	NDTV54VU5000CTRF	54	2	60.0	66.3	1	87.1	57.5	5000	SMC
NDTV58VB5000CTRF	NDTV58VU5000CTRF	58	2	64.4	71.2	1	93.6	53.5	5000	SMC
NDTV60VB5000CTRF	NDTV60VU5000CTRF	60	2	66.7	73.7	1	96.8	51.7	5000	SMC
NDTV64VB5000CTRF	NDTV64VU5000CTRF	64	2	71.1	78.6	1	103	48.6	5000	SMC
NDTV70VB5000CTRF	NDTV70VU5000CTRF	70	2	77.8	86.0	1	113	44.3	5000	SMC
NDTV75VB5000CTRF	NDTV75VU5000CTRF	75	2	83.3	92.1	1	121	41.4	5000	SMC

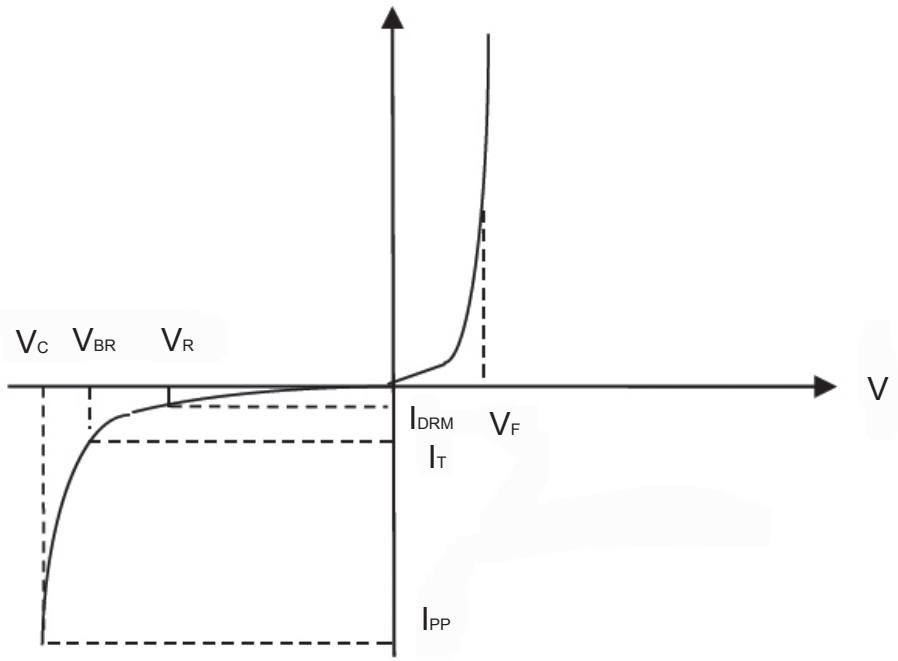
Symbol	Definition
V_F	Forward Voltage Drop
V_C	Clampiing Voltage
I_{PP}	Surge Waveform 10/1000µS
V_{BR}	Breakdown Voltage
V_R	Stand-off Voltage
I_T	Test Current
I_{DRM}	Reverse Leakage Current
P_{PP}	Peak Pulse Power Dissipation

V-I Curves

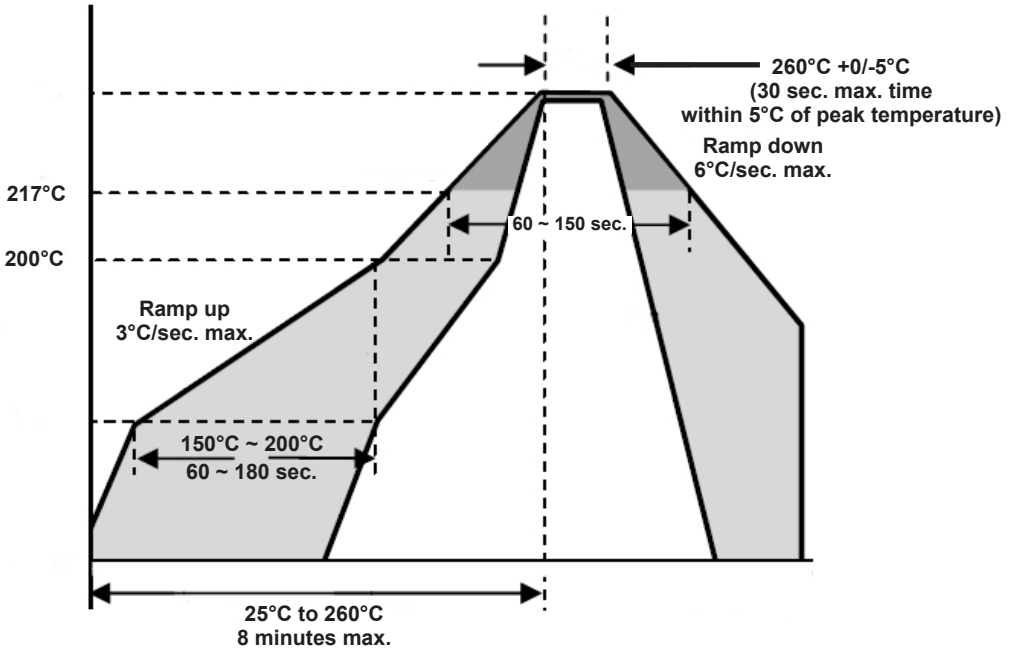
Bi-Directional



Uni-Directional



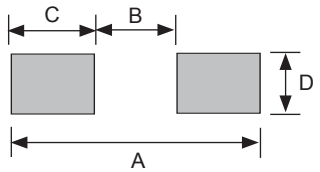
RECOMMEND REFLOW SOLDERING PROFILE



Note: Two reflow passes allowed

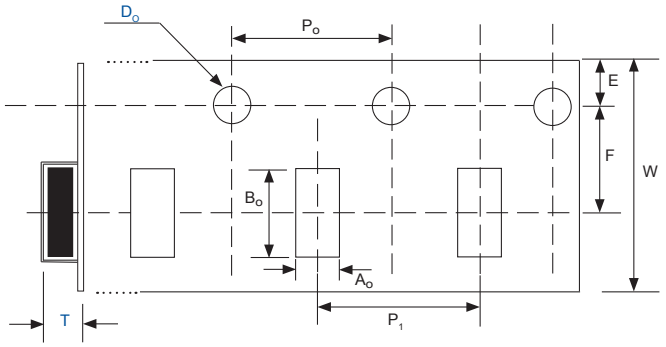
RECOMMEND LAND PATTERN DIMENSIONS (mm)

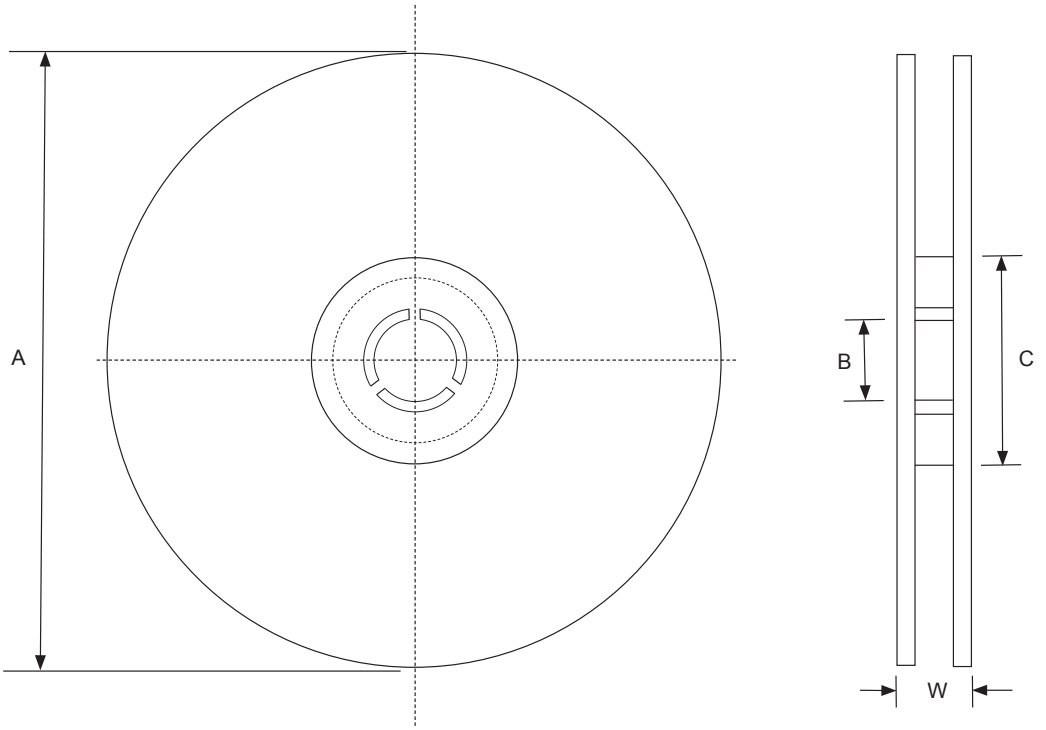
Case Size	A ref.	B ref.	C ref.	D ref.
SMA	6.00	2.00	2.00	2.00
SMB	6.58	2.26	2.16	2.75
SMC	8.25	5.05	1.60	3.05



EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

Case Size	A_o	B_o	W	F	E	P_1	P_0	D_0	T
SMA	2.60 ± 0.30	5.30 ± 0.30	12.0 ± 0.20	5.65 ± 0.20	1.75 ± 0.20	4.0 ± 0.20	4.0 ± 0.20	1.50 ± 0.25	2.36 ± 0.30
SMB	3.80 ± 0.30	6.65 ± 0.30	12.0 ± 0.30	5.5 ± 1.50	1.75 ± 0.20	4.0 ± 0.20	4.0 ± 0.20	1.50 ± 0.25	2.45 ± 0.30
SMC	6.15 ± 0.30	8.20 ± 0.30	16.0 ± 0.10	7.5 ± 0.10	1.75 ± 0.20	8.0 ± 0.10	4.0 ± 0.10	1.60 ± 0.20	2.70 ± 0.30



REEL DIMENSIONS (mm)

Case Size	A	B	C	W	Reel Quantity
SMA	330 ± 10	13.0 ± 2.0	100.0 ± 5.0	16.8 ± 2.0	5,000
SMB	330 ± 10	13.0 ± 2.0	100.0 ± 5.0	18.0 ± 4.0	3,000
SMC	330 ± 10	13.0 ± 2.0	100.0 ± 5.0	22.0 ± 2.0	3,000