

### FEATURES

- ULTRA HIGH CURRENT (UP TO 20,000A @ 8/20 $\mu$ S)
- CASE SIZE 2332 (6.0MM X 8.3MM X 8.3MM)
- LOW CAPACITANCE AND INSERTION LOSS
- OPERATING TEMPERATURE RANGE -55°C ~ +105°C
- UL LISTED - ISOLATED LOOP CIRCUIT PROTECTORS-COMPONENTS
- COMPATIBLE WITH REFLOW SOLDERING (+260°C)
- RoHS COMPLIANT

**RoHS  
Compliant**

includes all homogeneous materials\*

\*See Part Number System for Details



### SPECIFICATIONS

Type	Breakdown Voltage <sup>1,2</sup> (100V/S)	Breakdown Voltage Tolerance (V)	Impulse Spark-over Voltage <sup>1,2</sup> (1KV/ $\mu$ s)	Impulse Discharge Current <sup>3</sup> (8/20 $\mu$ s)	Insulation Resistance	Capacitance (1MHz, 0.5VDC)	Arc Voltage 1A	Application	Circuit
NGTM2332M091TR20F	90V	72 ~ 108	≤ 600V	20,000A	≥1GΩ @ 50V	≤1.5pF	~ 8V	DC Power	1 →  → 2
NGTM2332M351TR20F	350V	280 ~ 420	≤ 650V		~ 15V		DC Power	1 →  → 2	
NGTM2332M471TR20F	470V	376 ~ 564	≤ 850V		~ 15V		AC Power	1 →  → 2	
NGTM2332M601TR20F	600V	480 ~ 720	≤ 950V		~ 15V		AC Power	1 →  → 2	
NGTM2332M801TR20F	800V	640 ~ 960	≤ 1200V		~ 15V		AC Power	1 →  → 2	
NGTM2332M152TR10F	1500V	1200 ~ 1800	≤ 2500V	10,000A	≥1GΩ @ 100V		~ 15V	AC Power	1 →  → 2
NGTM2332M252TR05F	2500V	2000 ~ 3000	≤ 4000V	5,000A			~ 30V	AC Power	1 →  → 2
NGTM2332M362TR05F	3600V	2800 ~ 4320	≤ 5000V	5,000A			~ 30V	AC Power	1 →  → 2

**Contact NIC regarding availability of values not shown.**

1. Parameters are based on ITU-T K.12
2. The V-T waveform of the DC Breakdown Voltage and Impulse Spark-over Voltage must lie between the shades areas (see graph page2)
3. Total Impulse Discharge Current @ 8/20 $\mu$ s by IEC 6100-4-5, 10 shots

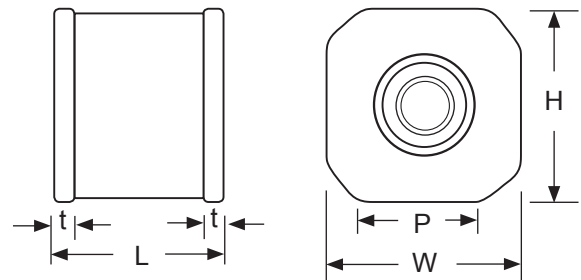
### UL Listing:

NIC COMPONENTS CORP  
Surge Protection Devices - Component  
RE: VZCA2.E357747



### DIMENSIONS (mm)

L	W	H	P	t
6.0 ± 0.2	8.3 ± 0.2	8.3 ± 0.2	4.2 ± 0.1	0.5 ± 0.05

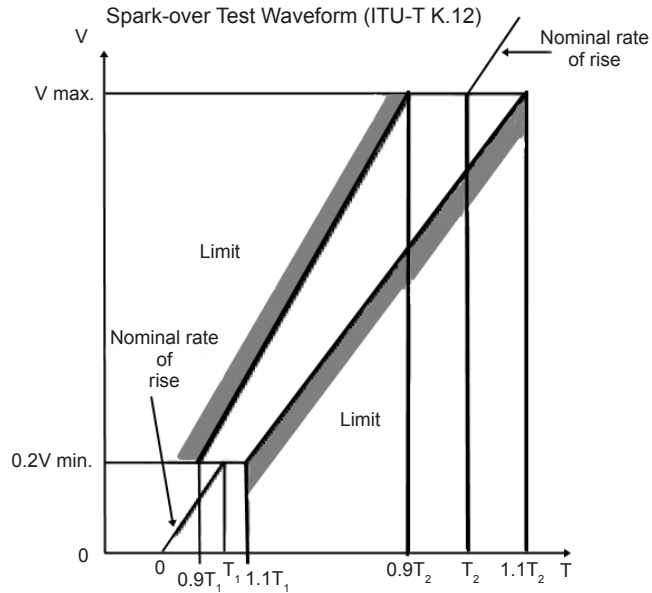


### PART NUMBERING SYSTEM

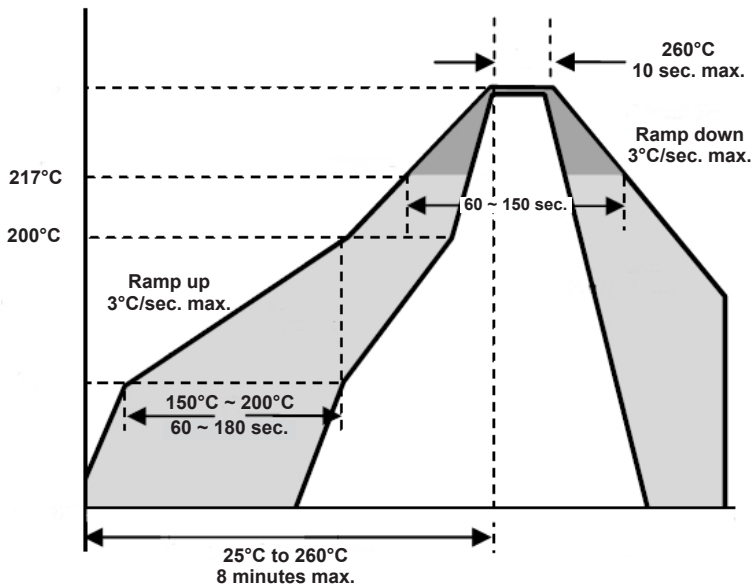
**NGTM 2332 M 601 TR 20 E**

- Series
- Case Size Code (see dimensions table)
- Tolerance Code (M = ±20%)
- Voltage Code: 601 = 600 Volts
- TR = Tape & Reel
- 20=20KA, 10=10KA, 05=5KA Impulse Discharge Current
- RoHS Compliant



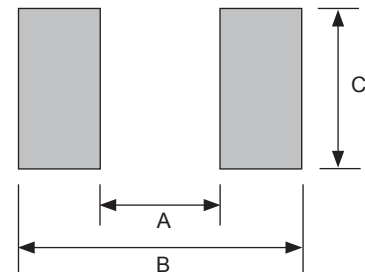


### REFLOW SOLDERING PROFILE



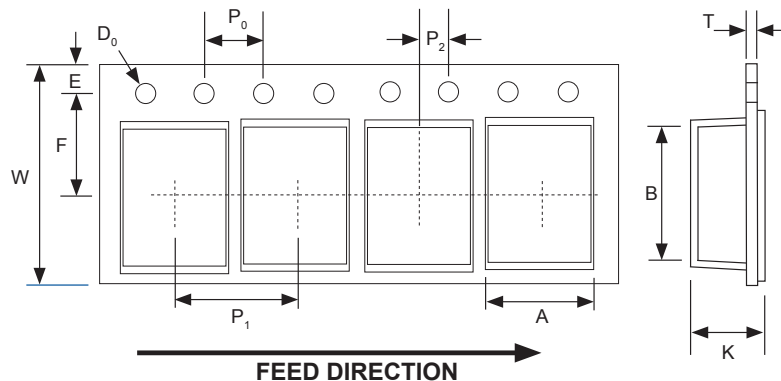
### LAND PATTERN DIMENSIONS (mm)

Case Size	A	B	C
3223	4.5	7.95	8.0



### EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)

Case Size	A	B	D <sub>0</sub>	E	F	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	T	K	W
2332	6.5 ± 0.2	8.6 ± 0.1	1.50 <sup>+0.1</sup> / <sub>0</sub>	1.75 ± 0.1	7.50 ± 0.1	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	0.55 ± 0.05	8.6 ± 0.2	16.0 ± 0.4



## REEL DIMENSIONS (mm) AND QUANTITY

Case Size	A	B	C	W	Qty
2332	330 ± 2.0	13.0 ± 0.15	100 ± 2.0	16.5 ± 0.5	500

