

FEATURES

- FAST RESPONSE, HIGH CURRENT (UP TO 5,000A @ 8/20 μ S)
- CASE SIZE 2016 (4.2MM X 5.0MM X 5.0MM)
- 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 ^{1, 2} (100V/S)	Breakdown Voltage Tolerance (V)	Impulse Spark-over Voltage ^{1, 2} (1KV/μs)	Impulse Discharge Current ³ (8/20μs)	Insulation Resistance	Capacitance (1MHz, 0.3VDC)	Arc Voltage 1A	Application	Circuit
NGTF2016M091TR5F	90V	72 ~ 108	≤ 650V	5,000A	≥1GΩ @ 50V	≤1pF	~ 8V	RS485/232/422	1  2
NGTF2016M231TR5F	230V	184 ~ 276	≤ 700V		≥1GΩ @ 100V		~ 8V	RS485/232/422	1  2
NGTF2016M351TR5F	350V	280 ~ 420	≤ 700V				~ 15V	DC12V/AC24V	1  2
NGTF2016M421TR5F	420V	336 ~ 504	≤ 750V				~ 16V	DC12V/AC24V	1  2
NGTF2016M601TR5F	600V	480 ~ 720	≤ 1200V				~ 8V	AC Power	1  2
NGTF2016M801TR3F	800V	640 ~ 960	≤ 1600V	3,000A			~ 15V	AC Power	1  2
NGTF2016M102TR3F	1000V	800 ~ 1200	≤ 1800V				~ 15V	AC Power	1  2
NGTF2016M122TR3F	1200V	960 ~ 1440	≤ 2000V				~ 15V	AC Power	1  2

Contact NIC regarding availability of values not shown.

- Parameters are based on ITU-T K.12
- The V-T waveform of the DC Breakdown Voltage and Impulse Spark-over Voltage must lie between the shades areas (see graph page 2)
- Total Impulse Discharge Current 5,000A or 3,000A @ 8/20 μ s by IEC 61000-4-5, 10 shots.

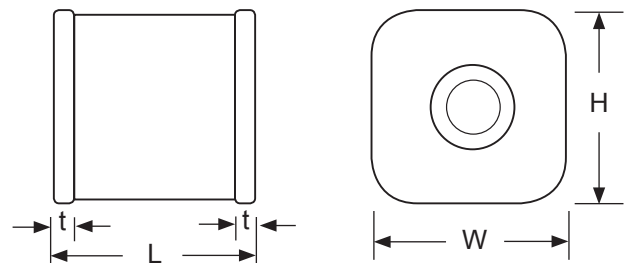
UL Listing:

NIC COMPONENTS CORP
Isolated Loop Circuit Protectors - Component
RE: QVGQ2.E467518



DIMENSIONS (mm)

L	W	H	t
4.2 ± 0.3	5.0 ± 0.2	5.0 ± 0.2	0.5 ± 0.1



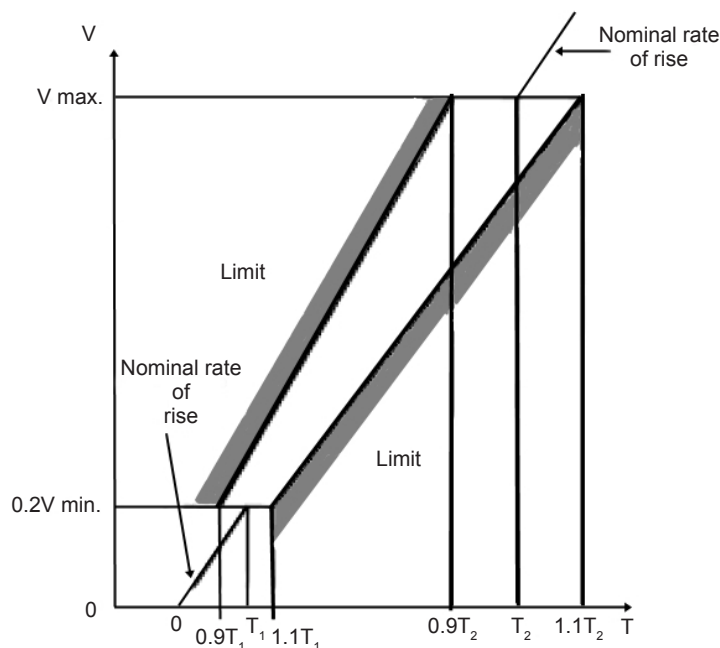
PART NUMBERING SYSTEM

NGTF 2016 M 601 TR 5 F

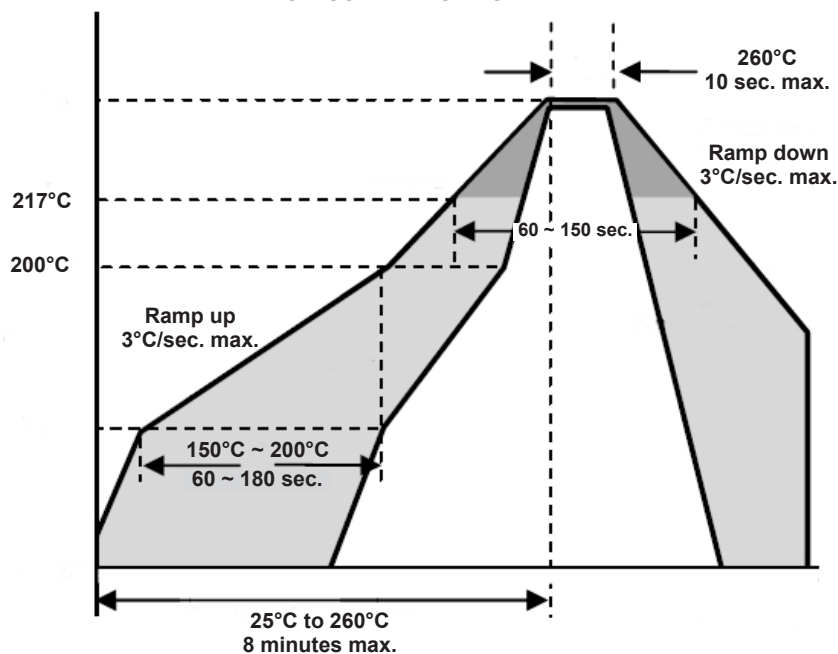
- RoHS Compliant
- 3 = 3KA Impulse Discharge Current Level
- 5 = 5KA Impulse Discharge Current Level
- TR = Tape & Reel
- Voltage Code: 601 = 600 Volts
- N = Tolerance Code (M = ±20%)
- Case Size Code (see dimensions table)
- Series



Spark-over Test Waveform (ITU-T K.12)

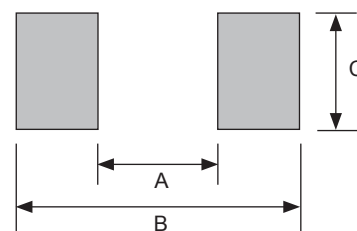


REFLOW SOLDERING PROFILE



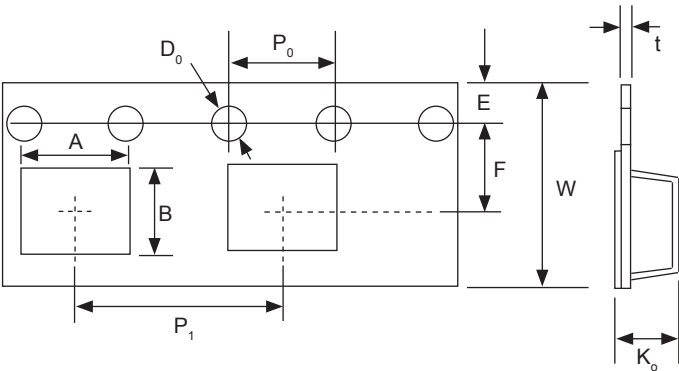
LAND PATTERN DIMENSIONS (mm)

Case Size	A	B	C
2016	3.0	4.95	5.5



EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)

Case Size	A	B	D ₀	E	F	P ₀	P ₁	t	K ₀	W
2016	5.3 ± 0.2	4.5 ± 0.2	1.50 ± 0.1	1.75 ± 0.1	7.50 ± 0.2	4.0 ± 0.2	8.0 ± 0.2	0.5 ± 0.05	5.2 ± 0.1	16.0 ± 0.3



REEL DIMENSIONS (mm) AND QUANTITY

Case Size	A	B	C	W	Qty
2016	φ330	φ13 ± 0.15	φ50 min.	16.8 ± 0.5	1,000

