

Surface Mount Gas Discharge Tube

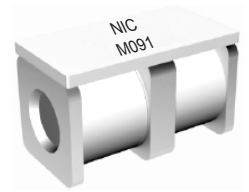
NGTD Series

FEATURES

- THREE TERMINALS
- FAST RESPONSE, HIGH CURRENT (UP TO 5,000A @ 8/20 μ S)
- CASE SIZE 3020 (7.8MM X 5.0MM X 6.0MM)
- OPERATING TEMPERATURE RANGE -55°C ~ +105°C
- UL LISTED - ISOLATED LOOP CIRCUIT PROTECTORS-COMPONENTS

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/ μ s)	Impulse Discharge Current ³ (8/20 μ s)	Insulation Resistance	Cap. (1MHz, 0.5VDC)	Arc Voltage 1A	Application	Circuit
NGTD3020M091TR5F	90V	68 - 112	≤ 700V	5000A*	≥1G Ω @ 50V	≤1.5pF	~ 8V	RS485 RS232 RS422	
NGTD3020M231TR5F	230V	200 - 380	≤ 800V	5000A*	≥1G Ω @ 100V		≥15V	DC12V AC24V	
NGTD3020M421TR5F	420V	336 - 504	≤ 950V	5000A*			~ 8V	xDSL	
NGTD3020M102TR5F	1000V	950 - 1500	≤ 1,800V	2000A**			~ 15V	xDSL (NEBS)	

* 1 or 2 → 3 : 2.5KA

** 1 or 2 → 3 : 1KA

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 below)
3. Total Impulse Discharge Current 5,000A @ 8/20 μ s by IEC 61000-4-5, 10 shots.

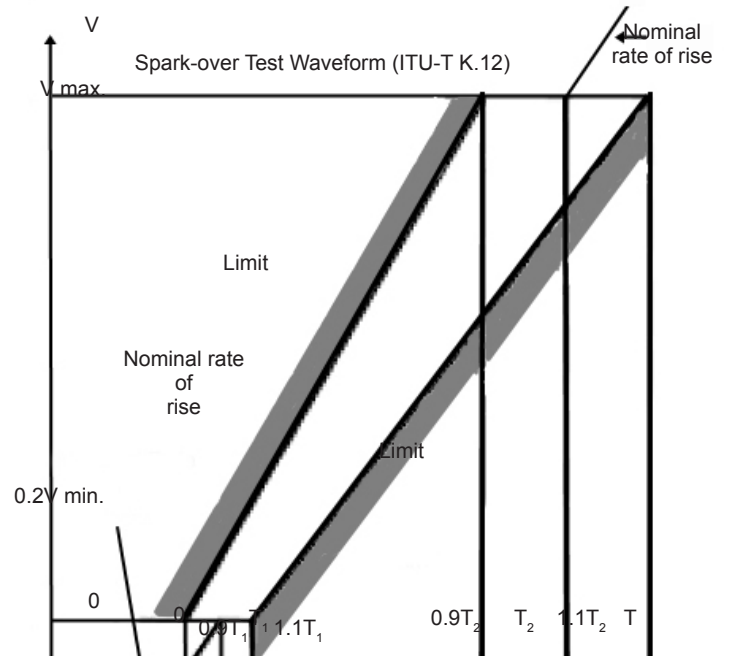
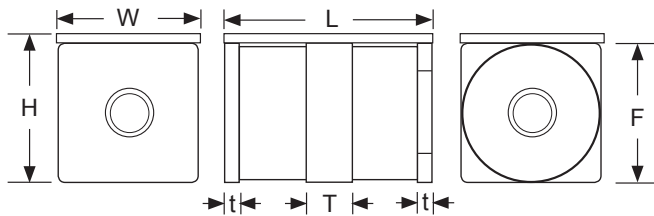
UL Listing:

NIC COMPONENTS CORP
Isolated Loop Circuit Protectors - Component
RE: QVGG2.E467518



DIMENSIONS (mm)

L	W	H	F	T	t
7.8 ± 0.3	5.0 ± 0.2	6.0 ± 0.3	5.0 ± 0.2	1.6 ± 0.2	0.5 ± 0.2

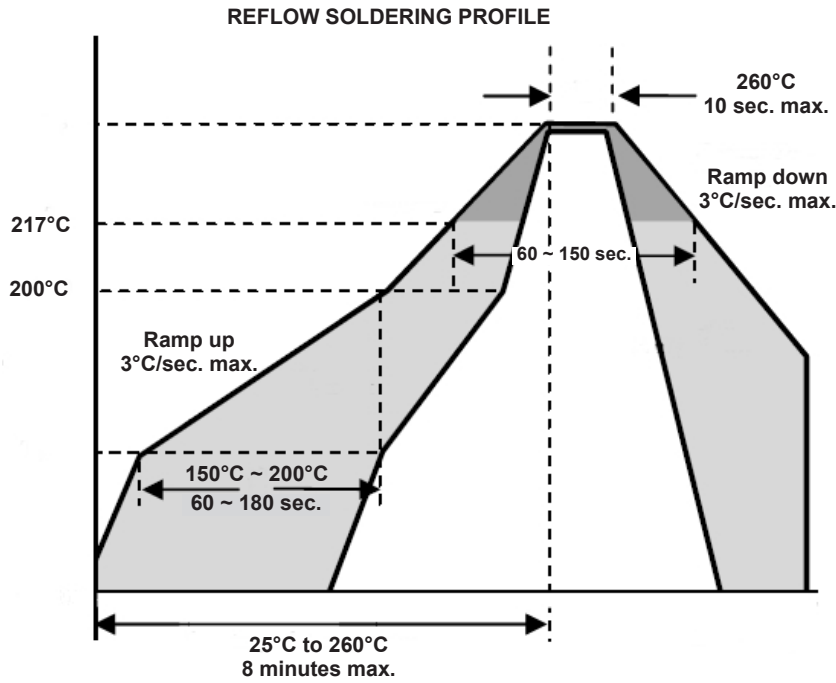


PART NUMBERING SYSTEM

NGTD 3020 M 351 TR 5 E

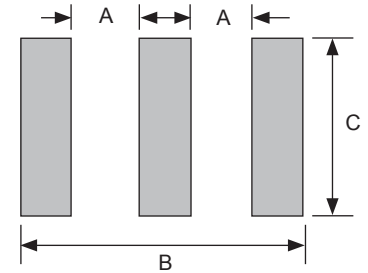
- RoHS Compliant
- 5 = 5KA Impulse Discharge Current
- TR = Tape & Reel
- Voltage Code: 421 = 42 x 10¹ = 420 Volts
- Tolerance Code (M = ±20%, See Specifications Table)
- Case Size Code (see dimensions table)
- Series



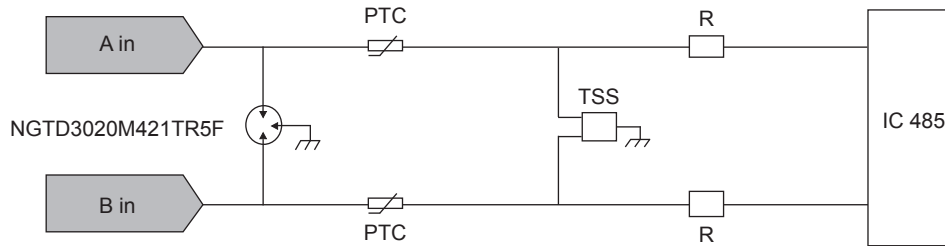


LAND PATTERN DIMENSIONS (mm)

Case Size	A	B	C
3020	1.5	9.6	5.0

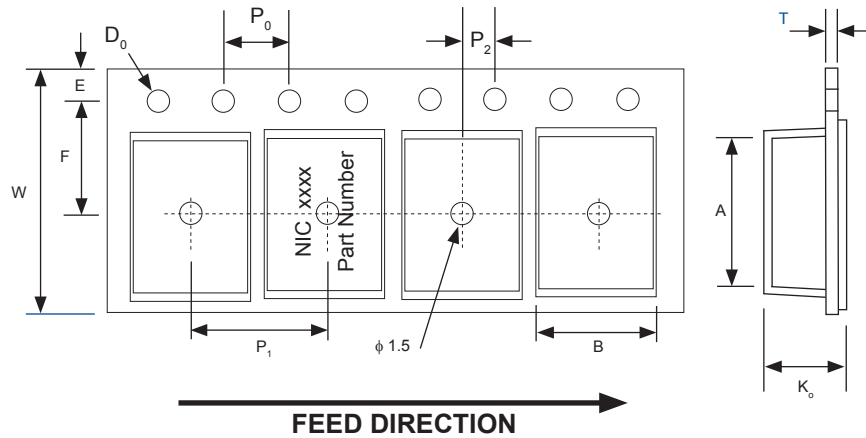


NGTD RS485/232 Application



EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)

Case Size	A	B	ϕD_0	E	F	P_0	P_1	P_2	T	K_0	W
3020	8.4 ± 0.2	5.4 ± 0.2	1.50 ± 0.2	1.75 ± 0.2	7.50 ± 0.2	4.0 ± 0.2	8.0 ± 0.2	2.0 ± 0.2	0.5 ± 0.2	6.3 ± 0.2	16.0 ± 0.3



REEL DIMENSIONS (mm) AND QUANTITY

Case Size	A	B	C	W	Qty
3020	$\phi 330$	$\phi 13 \pm 0.5$	$\phi 50$ min.	16.8 ± 0.2	1,000

