

**PROTEK DEVICES –
PAM11VN27 and
PAM21VN24**



ESD protection for in-vehicle networks

Applications:

- CANBus
- LINBus
- FlexRay
- SENT

Features:

- AEC-Q101 Qualified
- Compatible with IEC 61000-4-2 (ESD): Air $\pm 30kV$, Contact $\pm 30kV$
- Compatible with IEC 61000-4-4 (EFT)
- Compatible with IEC 61000-4-5 (Surge): 5A
- Bidirectional Configuration
- **PAM11VN27**: 135 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Low Clamping Voltage
- Ultra Low Leakage Current: 0.8nA @ 27°C (Typical)
- RoHS Compliant
- REACH Compliant

Please contact us for inquiries, samples or technical requests.

[CLICK FOR DATASHEET: PAM11VN27](#)
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**FREQTECH –
FT54B**



1 V OSCILLATOR

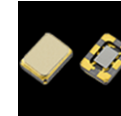
Features:

- Frequency 1,0~50,0 MHz
- Supply voltage 1.0V
- Current consumption 4 mA max.
- Frequency stability of $\pm 50ppm$ over an operating temperature range of -10 to 70 degrees C, as well as $\pm 25ppm$ and -40 to 85 degrees C
- Output load condition CMOS 15 pF
- Symmetry 40% to 60%
- Output rise & fall time 6ns Max.
- high & low output voltage 90% Vdd min. 10% Vdd max.
- Sizes of 7 x 5mm, 5 x 3.2mm, 3.2 x 2.5mm and 2.5 x 2mm

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[CLICK FOR DATASHEET: FT54B](#)

**GOLLEDGE –
GTXO-163**



Ultra-miniature TCXOs

- Ideally suited for wearable applications
- Temperature stability any $\pm 2.5ppm$ max $\pm 1.0ppm$ max, $\pm 0.5ppm$ max
- Operating temperature range any, -30 to +85°C, -40 to +85°C
- Supply voltages from 1.8V ~ 3.6V, please specify test voltage: 3.3V
- Low power consumption
- Ultra-miniature SM package
- Excellent frequency stability

Features:

- Frequency range 16.0 ~ 52.0MHz
- Dimensions 1.65 x 1.25 x 0.7mm
- Storage temperature range -40 to +85°C
- Supply voltage stability $\pm 0.2ppm$, V $\pm 5\%$
- Load stability $\pm 0.2ppm$, Z $\pm 10\%$
- Ageing $\pm 1.0ppm$ max (first year)
- Supply voltage (V) Operable from 1.8V ~ 3.6V
- Supply current 2.0mA max
- Output waveform Clipped sine, 0.8V p-p
- Test load (Z) 10k Ω // 10pF
- Start up time 2.0ms max
- Harmonics -5dBc max
- Phase noise -130dBc/Hz @ 1kHz
- Frequency tolerance @ 25°C $\pm 2.0ppm$ max after 2 reflows

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DATASHEET: GTXO-163

**PROTEK DEVICES –
SMDB712C**



Interface App Note RS-485/RS422 Protection

Benefit:

The integrated TVS Diode solution is designed to protect the interface against surge events by using one device to protect transceivers con-nected to the twisted pair, with 10 Ohm series resistance.

Features:

- IEC 61000-4-2 $\pm 8kV$ Contact, $\pm 15kV$ Air Discharge
- IEC 61000-4-4 EFT 40A, 5/50ns
- IEC 61000-4-5 Surge Secondary Lightning, 50A @ 8/20 μs
- DO-160 Section 22, Waveform 5A (300V/300A)
- 1 x SMDB712C in SO-8Package
- Stand-Off Voltage VWM: -7V/ +12V
- Breakdown Voltage BVMIN: -8.5V / +13.3V
- Vc @ Ip: 25.5V @ 40A / 32.9V @ 34A
- Leakage Current IR: 10 μA / 2 μA
- Typ. Capacitance: 284pF

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[CLICK FOR DATASHEET: RS-485/RS-422](#)