



# Switching Gas Discharge Tubes

## Gas Plasma Voltage Dependent Switches

### XT Series

#### Device Ratings and Specifications

Part Number	V <sub>BO</sub> (1) (7) (V)	Max Ignition	V <sub>T</sub> @ 5A (V)	I <sub>DRM</sub> (2) (A)	I <sub>BO</sub> (2) (mA)	C <sub>O</sub> (4) (pF)	V <sub>BO</sub> to V <sub>T</sub> (ns)	R <sub>S</sub> (M)
XT350	297 – 403	463	15	1.0	5	1.5	25	>1
XT600	510 – 690	750	15	1.0	5	1.5	25	>1
XT800	680 – 920	1000	15	1.0	5	1.5	25	>1

#### Electrical Life:

Switching Cycles (5) ..... 150,000

#### Maximum Ratings:

Max Switching Frequency(6) ..... 400 Hz

Storage Temperature TSTG ..... -40 - +150°C

Operating Temperature ..... -40 - +150°C

#### Notes:

- (1) Measured on recommended test circuit (fig 1.)
- (2) Measured @ 100 Volts DC
- (3) Current required for transition to on-state
- (4) Measured @ 1 MHz, zero Volt bias
- (5) Measured on recommended test circuit (fig 2.)
- (6) Duty Cycle: 1sec on, 10 sec off.
- (7) Will retain these limits during life cycle

#### Definitions:

**V<sub>BO</sub>** – Breakover Voltage

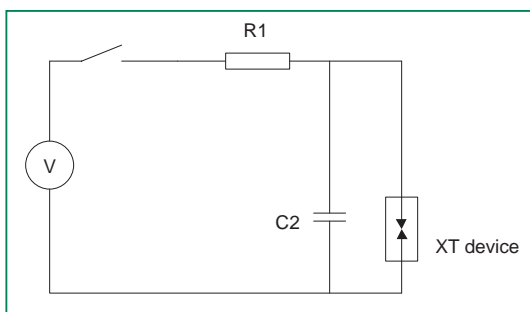
**V<sub>T</sub> @ 5A** – Nominal Off-state Voltage at 5A

**I<sub>DRM</sub>** – Off-state Current

**I<sub>BO</sub>** – Nominal Breakover Current

**C<sub>O</sub>** - Max Capacitance

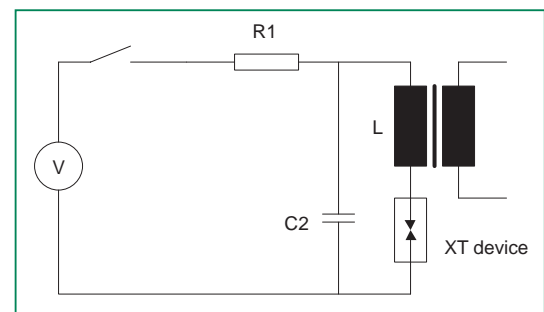
**V<sub>BO</sub> to V<sub>T</sub>** – Max switching time from V<sub>BO</sub> to V<sub>T</sub>



**Fig 1.** Recommended breakover voltage test circuit

V: open circuit DC voltage =500 (1000V for 600 and 800Vparts)  
 R1 =51KΩ  
 C1 =220nF

Discharge current =10 mAmps ( approx )



**Fig 2.** Recommended life test circuit

V: open circuit DC voltage =500 (1000V for 600 and 800V parts)  
 R1 =10KΩ  
 C1 =680nF  
 L =0.5μH

Discharge current =500Amps ( approx )