1. General description

AC Thyristor Triac power switch in a SOT404 (D2PAK) surface mountable plastic package with self-protective clamping capabilities against low and high energy transients. This "series CTN" triac will commutate the full RMS current at the maximum rated junction temperature ($T_{j(max)} = 150$ °C) without the aid of a snubber. It is used in applications where "high junction operating temperature capability" is required.

2. Features and benefits

- Clamping structure ensuring safe high over-voltage withstand capability
- High junction operating temperature capability (T_{i(max)} = 150 °C)
- High minimum IGT for guaranteed immunity to gate noise
- Full cycle AC conduction
- Over-voltage withstand capability to IEC 61000-4-5
- Pin compatible with standard triacs
- Planar passivated for voltage ruggedness and reliability
- Protective self turn-on capability for high energy transients
- Safe clamping capability for low energy over-voltage transients
- Less sensitive gate for high noise immunity
- Surface mountable package
- Triggering in three quadrants only
- Very high immunity to false turn-on by dV/dt and IEC 61000-4-4 fast transient
- Package meets UL94V0 flammability requirement
- Package is RoHS compliant

3. Applications

- AC fan, pump and compressor controls
- Highly inductive, resistive and safety loads
- Large and small appliances (White Goods)
- Reversing induction motor controls
- Applications subject to high temperature (T_{i(max)} = 150 °C)

4. Quick reference data

Table 1. Quick reference data

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
V_{DRM}	repetitive peak off- state voltage		-	-	800	V



