

## Phototransistor chip FT059

### Description

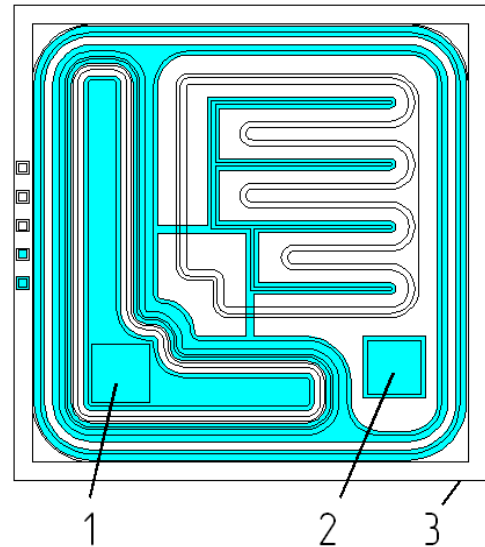
FT059 chip is fabricated using Silicon Bipolar process technology. This chip is designed to be used in high CTR optocouplers.

### Features

- High Sensitivity - Darlington Output
- High Breakdown Voltage 60 V
- Chip Size - 1.15 x 1.15 mm
- Chip Thickness - 0.35 mm±0.02mm
- Metallization: top - AlSi;  
bottom (Collector) - CrAu for bonding on conductive adhesive

### Absolute maximum ratings

Operating Junction Temperature	-45°C to 85°C
Limiting Temperature	-45°C to 85°C



- 1 - Emitter  
2 - Base  
3 - Collector

### Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-Emitter Breakdown Voltage	$BV_{CEOL}$	60	-	-	V	$I_C = 10 \text{ mA}$
Collector-Emitter Leakage Current	$I_{LEAK CE}$	-	-	1.0	$\mu\text{A}$	$V_{REV} = 60 \text{ V}$
Emitter-Base Current	$I_{EB}$	-	-	0.1	$\mu\text{A}$	$V_{EB} = 5 \text{ V}$
Collector-Emitter Saturation Voltage	$V_{CE SAT}$	-	-	1.2	V	$I_B = 50 \mu\text{A}$ , $I_C = 80 \text{ mA}$
Current Transfer Ratio	$h_{21E}$	-	-	10 000	-	$I_B = 35 \mu\text{A}$ , $V_{CE} = 10 \text{ V}$