

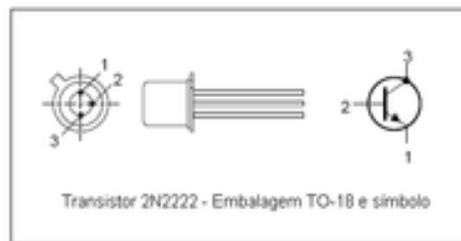
# TRANSISTORE

è un dispositivo a semiconduttore largamente usato sia nell'elettronica analogica sia nell'elettronica digitale

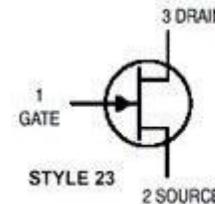
Transistore a giunzione bipolare o BJT  
usato principalmente come amplificatore ed interruttore  
NPN e PNP

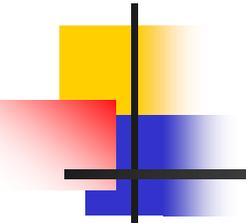


PINO	Identificação
1	Emissor
2	Base
3	Coletor (ligado à embalagem)



Transistore ad effetto di campo  
FET:  
JFET, MESFET e MOSFET





# storia del TRANSISTORE

---

**Nel 1925 il fisico e ingegnere Julius Edgar Lilienfeld progettò il primo transistoro descrivendo un dispositivo simile all'attuale transistoro ad effetto di campo. Lilienfeld non pubblicò alcuna ricerca a tal proposito e nel 1934 l'inventore tedesco Oskar Heil brevettò un dispositivo molto simile**

**Dato che il transistoro funzionava in modo analogo ad un triodo, venne chiamato *triodo a stato solido*: il nome definitivo deriva dall'unione dei termini "TRANSconductance" e "varISTOR"**

# storia del TRANSISTORE

**1947 - primo prototipo funzionante**

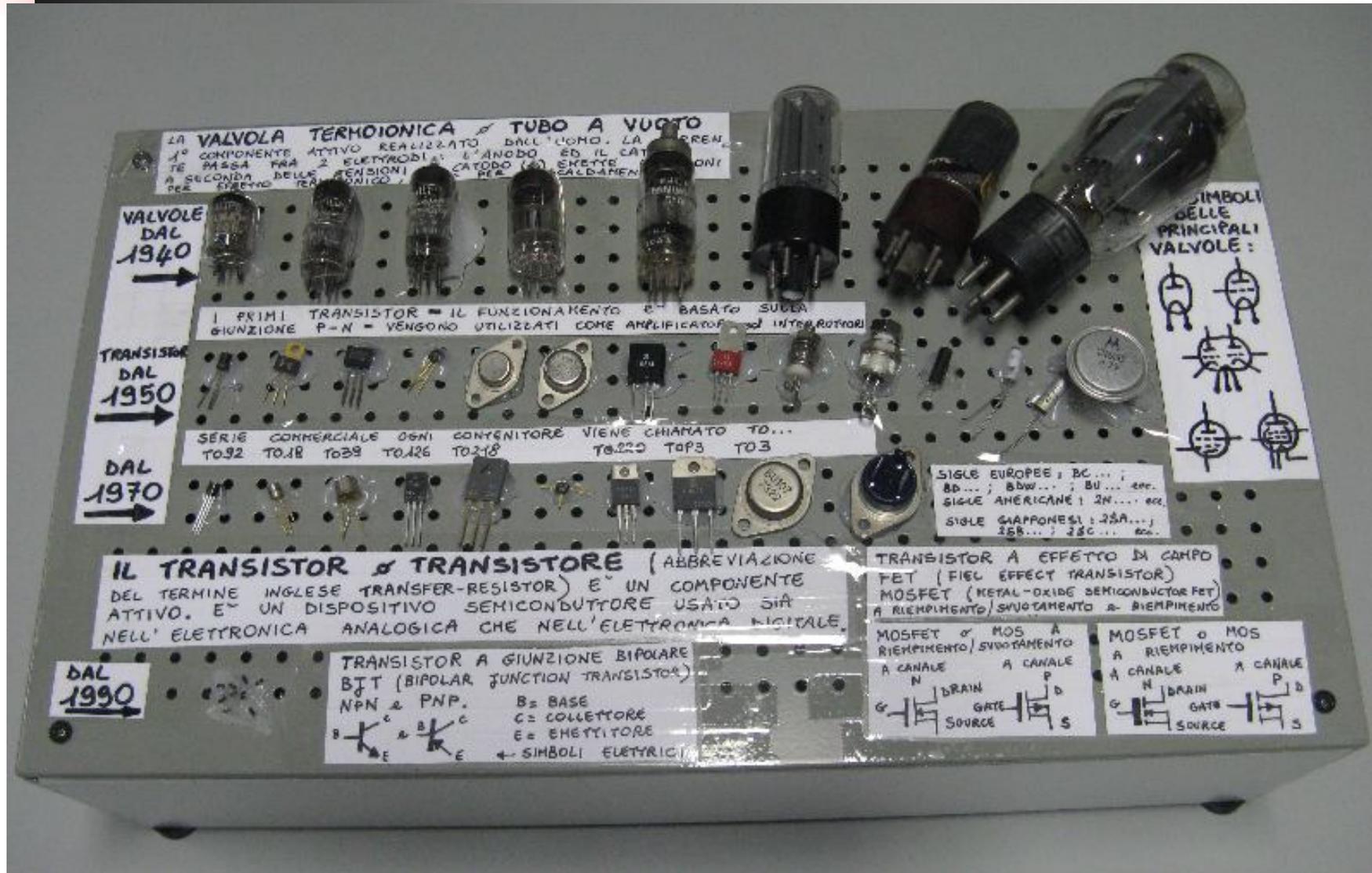
**Fine anni '50 - la produzione del transistor si orientò verso l'utilizzo del silicio come elemento semiconduttore**

**Negli anni '70 il transistor al germanio divenne obsoleto**

**I tipi di contenitori del dispositivo si sono moltiplicati e negli anni sono stati usati materiali come la ceramica, il metallo, la plastica o assemblaggi misti**  
**Negli anni '60 venne usato anche il vetro**

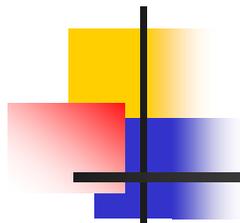


# TRANSISTORE pannello MTE



# DATASHEET

# 2N2222



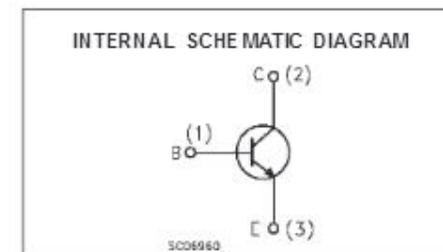
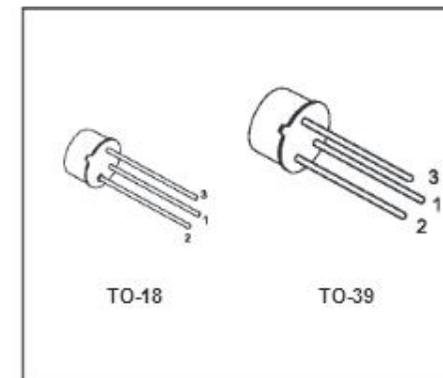
2N2219A  
2N2222A

## HIGH SPEED SWITCHES

### DESCRIPTION

The 2N2219A and 2N2222A are silicon planar epitaxial NPN transistors in Jedec TO-39 (for 2N2219A) and in Jedec TO-18 (for 2N2222A) metal case. They are designed for high speed switching application at collector current up to 500mA, and feature useful current gain over a wide range of collector current, low leakage currents and low saturation voltage.

● 2N2219A approved to CECC 50002-100,  
2N2222A approved to CECC 50002-101  
available on request.

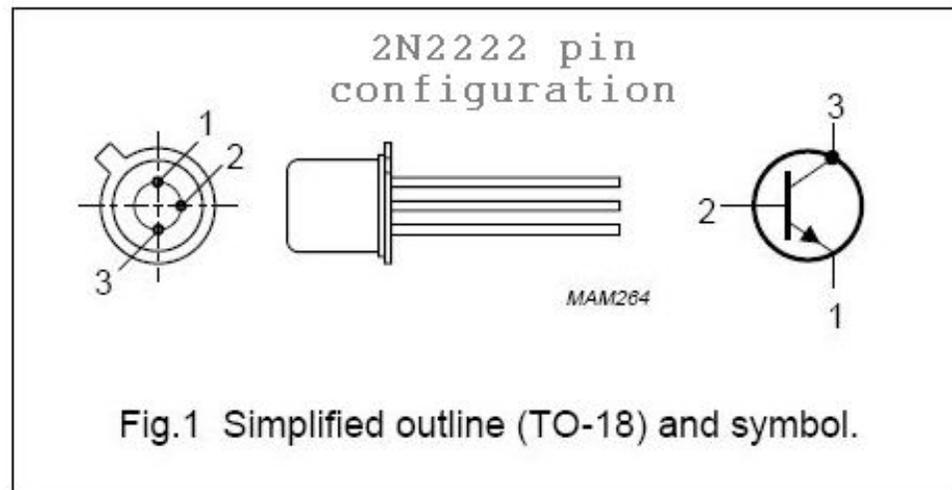
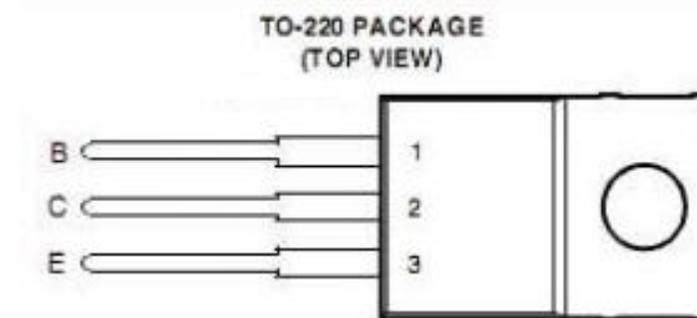


### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage ( $I_E = 0$ )	75	V
$V_{CE0}$	Collector-Emitter Voltage ( $I_E = 0$ )	40	V
$V_{EB0}$	Emitter-Base Voltage ( $I_C = 0$ )	6	V
$I_C$	Collector Current	0.8	A
$P_{100}$	Total Dissipation at $T_{amb} \leq 25^\circ\text{C}$ for 2N2219A for 2N2222A at $T_{case} \leq 25^\circ\text{C}$ for 2N2219A for 2N2222A	0.8	W
		0.5	W
		3	W
		1.8	W
$T_{stg}$	Storage Temperature	-65 to 200	$^\circ\text{C}$
$T_J$	Max. Operating Junction Temperature	175	$^\circ\text{C}$

# TRANSISTORE BJT

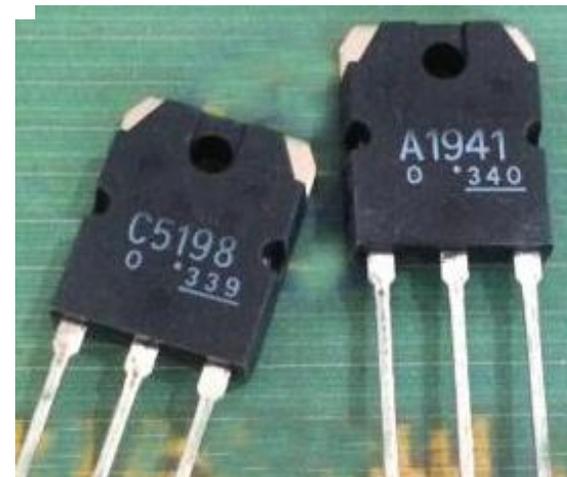
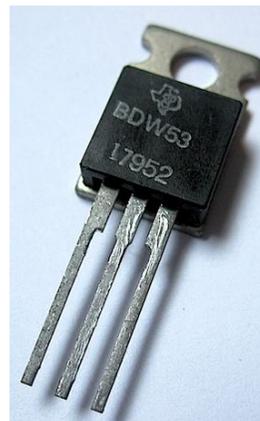
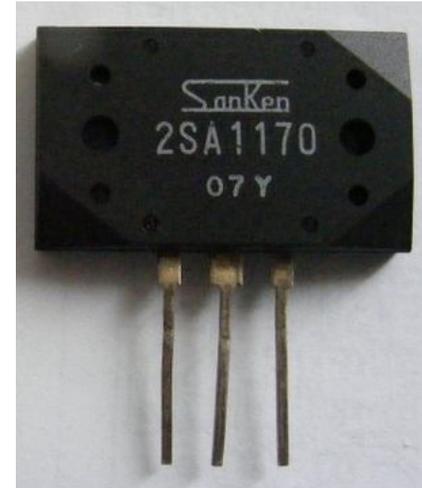
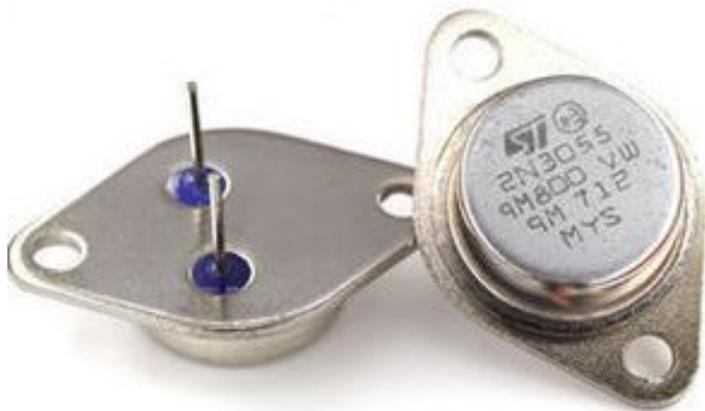
PIN	DESCRIPTION
1	emitter
2	base
3	collector, connected to case



2N3055 pinout

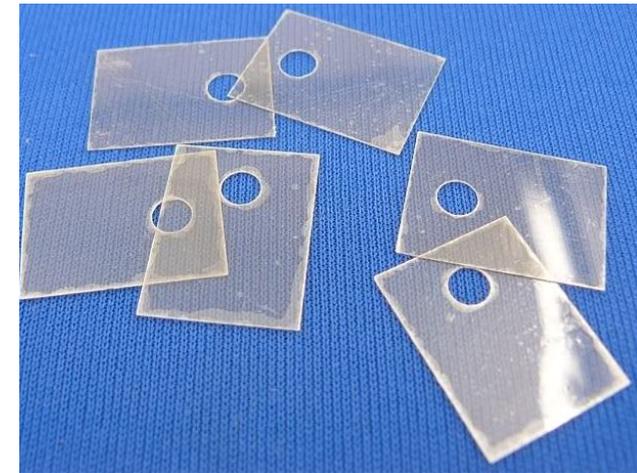
1. Base
2. Emitter
3. Collector

# TRANSISTORE di POTENZA

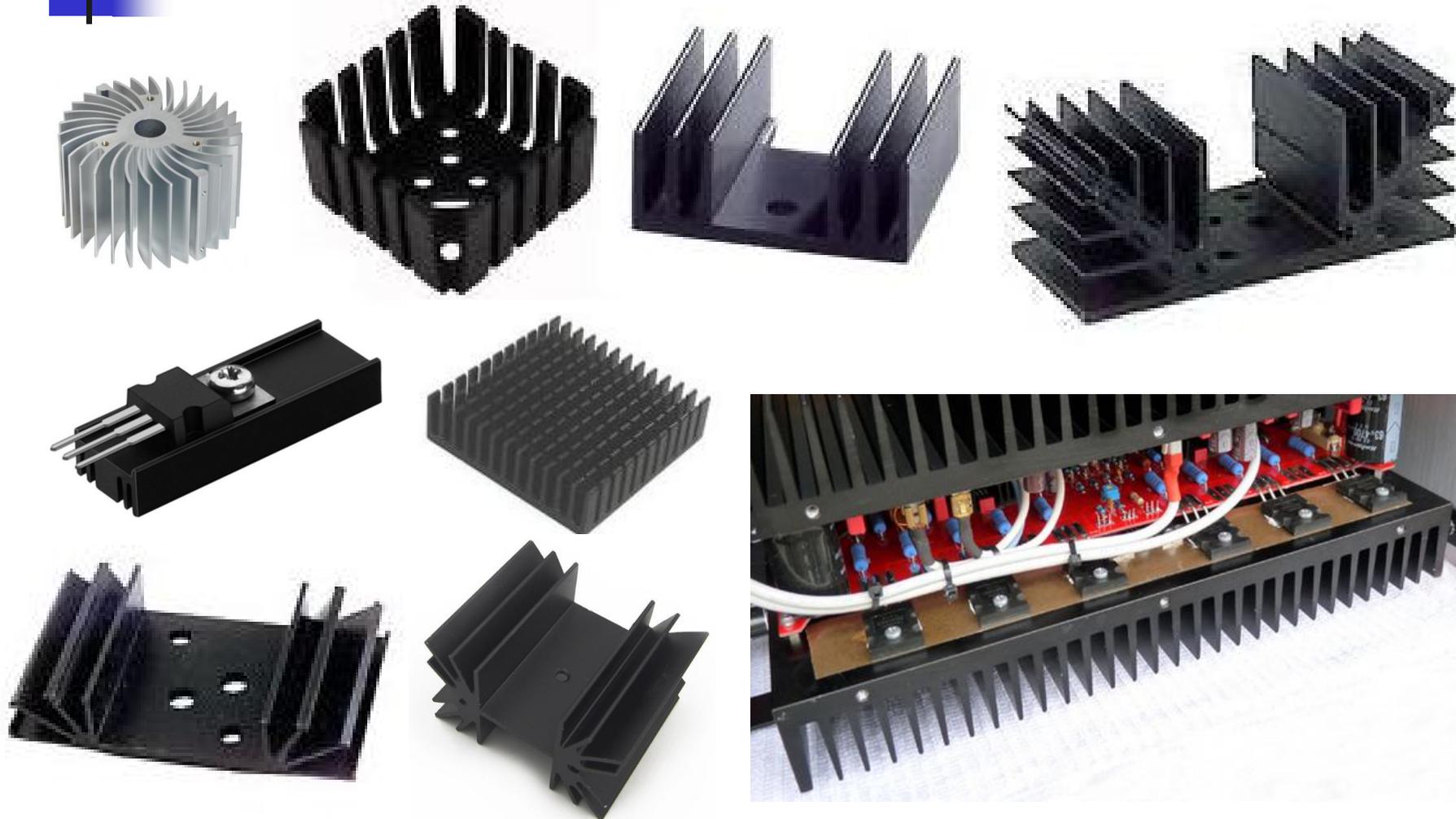
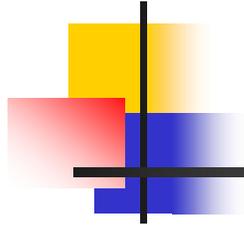


**più utilizzato: 2N3055**

# MIKA per TRANSISTORE di POTENZA



# ALETTE DI RAFFREDDAMENTO o DISSIPATORI TERMICI per TRANSISTORE di POTENZA

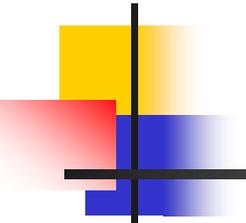


# TRANSISTORE SMD o SMT

---

*Surface Mounting Device o  
Surface-Mount Technology*





# Valore e Tensione del TRANSISTORE

---

**crescono con le sue dimensioni**

**Serie Europea: BC... , BD... , BDW... , BF... , BU...**

**Serie Americana: 2N....**

**Serie Giapponese: 2SA..... , 2SB..... , 2SC.....**

