

# 2SC2412

## NPN Silicon Epitaxial Planar Transistor

for general purpose applications.

The transistor is subdivided into three groups Q, R and S, according to its DC current gain.



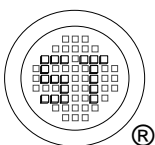
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	60	V
Collector Emitter Voltage	$V_{CEO}$	50	V
Emitter Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	150	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 6\text{ V}$ , $I_C = 1\text{ mA}$	Current Gain Group Q	$h_{FE}$	120	-	270	-
	R	$h_{FE}$	180	-	390	-
	S	$h_{FE}$	270	-	560	-
Collector Base Cutoff Current at $V_{CB} = 60\text{ V}$	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Base Cutoff Current at $V_{EB} = 7\text{ V}$	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Base Breakdown Voltage at $I_C = 50\text{ }\mu\text{A}$	$V_{(BR)CBO}$	60	-	-	V	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	50	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 50\text{ }\mu\text{A}$	$V_{(BR)EBO}$	7	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 50\text{ mA}$ , $I_B = 5\text{ mA}$	$V_{CE(sat)}$	-	-	0.4	V	
Gain Bandwidth Product at $V_{CE} = 12\text{ V}$ , $-I_E = 2\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	-	180	-	MHz	
Output Capacitance at $V_{CE} = 12\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	2	3.5	pF	



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