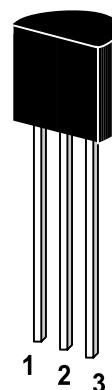


# ST 2SC2058

## High-frequency Amplifier Transistor

### Features

- 1) Low collector capacitance (Cob:Typ. 1.3pF)
- 2) Low rbb, high gain and excellent noise characteristics.



1. Emitter 2. Collector 3. Base

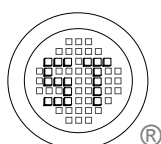
TO-92 Plastic Package

Weight approx. 0.19g

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

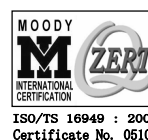
	Symbol	Value	Unit
Collector Base Voltage	$V_{\text{CBO}}$	40	V
Collector Emitter Voltage	$V_{\text{CEO}}$	25	V
Emitter Base Voltage	$V_{\text{EBO}}$	5	V
Collector Current	$I_{\text{C}}$	50	mA
Power Dissipation	$P_{\text{tot}}$	300	mW
Junction Temperature	$T_{\text{J}}$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{S}}$	-55 to +150	$^\circ\text{C}$

**G S P FORM A IS AVAILABLE**



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, acompany  
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001  
Certificate No. 7116



ISO 9001 : 2000  
Certificate No. 0508-1999-01-001-001

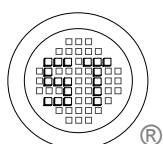
Dated : 17/05/2003

# ST 2SC2058

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

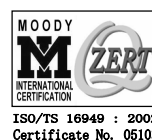
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$	$h_{FE}$	82		180	-
Collector Saturation Voltage at $I_C=10\text{mA}$ , $I_B=1\text{mA}$	$V_{CEsat}$	-	0.1	0.3	V
Collector Cutoff Current at $V_{CB}=24\text{V}$	$I_{CBO}$	-	-	0.5	$\mu\text{A}$
Emitter Cutoff Current at $V_{EB}=3\text{V}$	$I_{EBO}$	-	-	0.5	$\mu\text{A}$
Collector Base Breakdown Voltage at $I_C=50\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	25	-	-	V
Emitter Base Breakdown Voltage at $I_E=50\text{ }\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Transition Frequency at $V_{CE}=6\text{V}$ , $I_E=-1\text{mA}$ , $f=100\text{MHz}$	$f_T$	150	300	-	MHz
Output Capacitance at $V_{CB}=6\text{V}$ , $f=1\text{MHz}$	$C_{ob}$	-	1.3	2.2	pF

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