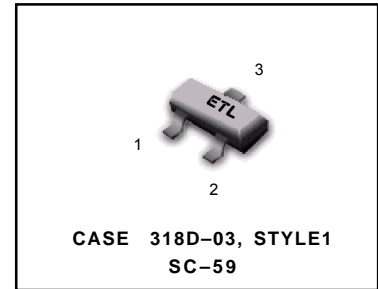
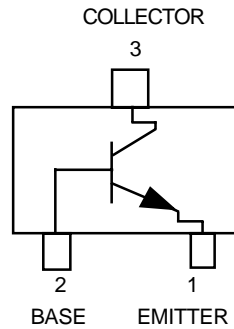


# NPN RF Amplifier Transistors

## Surface Mount

**MSC2295-BT1**  
**MSC2295-CT1**



### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{(BR)CBO}$	30	Vdc
Collector-Emitter Voltage	$V_{(BR)CEO}$	20	Vdc
Emitter-Base Voltage	$V_{(BR)EBO}$	5.0	Vdc
Collector Current - Continuous	$I_C$	30	mAdc

### THERMAL CHARACTERISTICS

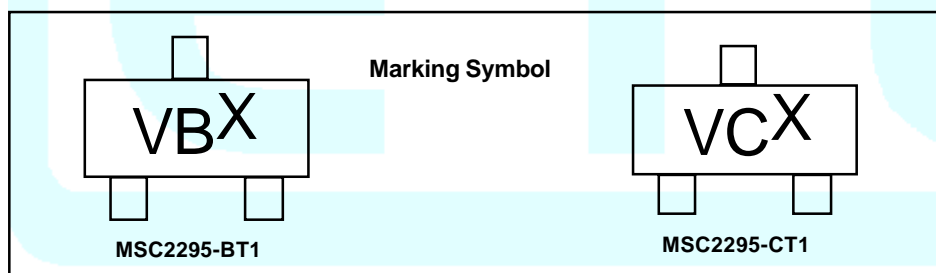
Characteristic	Symbol	Max	Unit
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

Characteristic	Symbol	Min	Max	Unit
Collector-Base Cutoff Current ( $V_{CB} = 10 \text{ Vdc}, I_E = 0$ )	$I_{CBO}$	—	0.1	$\mu\text{Adc}$
DC Current Gain <sup>(1)</sup> ( $V_{CB} = 10 \text{ Vdc}, I_C = -1.0 \text{ mAdc}$ )	MSC2295-BT1 MSC2295-CT1	70 110	140 220	—
Collector-Gain - Bandwidth Product ( $V_{CB} = 10 \text{ Vdc}, I_E = -1.0 \text{ mAdc}$ )	$f_T$	150	—	MHz
Reverse Transistor Capacitance ( $V_{CE} = 10 \text{ Vdc}, I_C = 1.0 \text{ mAdc}, f = 10.7 \text{ MHz}$ )	$C_{re}$	—	1.5	pF

1. Pulse Test: Pulse Width  $\leq 300 \text{ ms}$ , D.C.  $\leq 2\%$ .

### DEVICE MARKING



The "X" represents a smaller alpha digit Date Code. The Date Code indicates the actual month in which the part was manufactured.