

RoHS Compliant Product  
A suffix of "-C" specifies halogen and lead free

## FEATURES

- Low  $V_{CE(sat)}$
- Reduces Board Space
- Complements the 2SC4617CR-R-C
- Qualified to AEC-Q101 Standards for High Reliability

## MARKING

FR

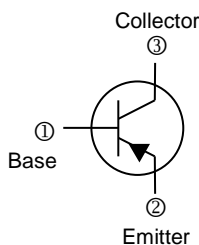
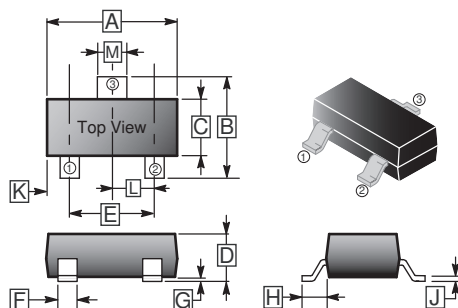
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-523	3K	7 inch

## ORDER INFORMATION

Part Number	Type
2SA1774CR-R-C	Lead (Pb)-free and Halogen-free

## SOT-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	G	-	0.10
B	1.45	1.75	H	-	0.55 REF.
C	0.70	0.90	J	0.08	0.20
D	0.60	0.90	K	-	-
E	0.90	1.10	L	0.50 TYP.	-
F	0.15	0.35	M	0.25	0.40

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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-50	
Emitter-Base Voltage	$V_{EBO}$	-6	
Collector Current-Continuous	$I_C$	-150	mA
Collector Power Dissipation	$P_C$	150	mW
Operating Junction & Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

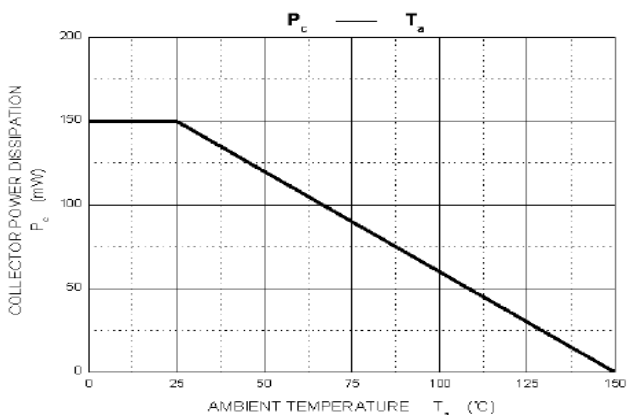
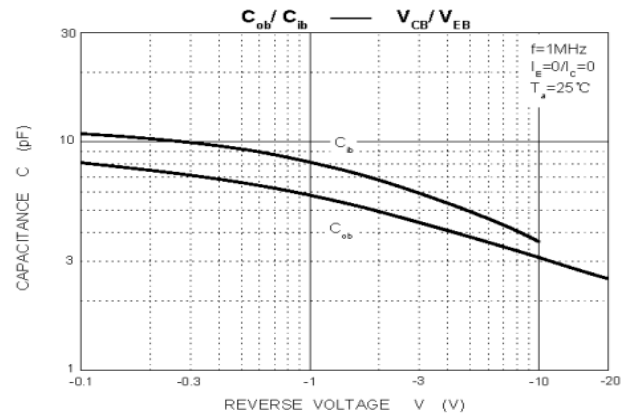
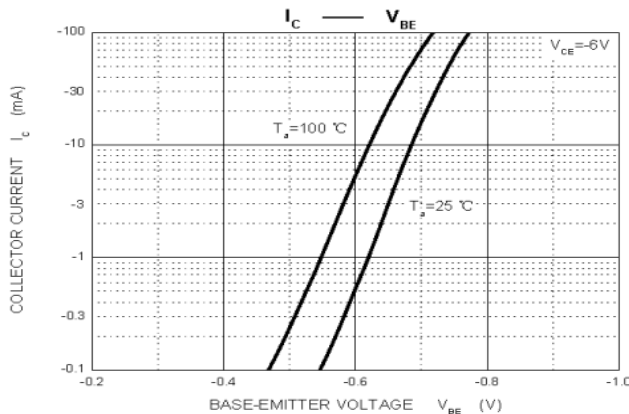
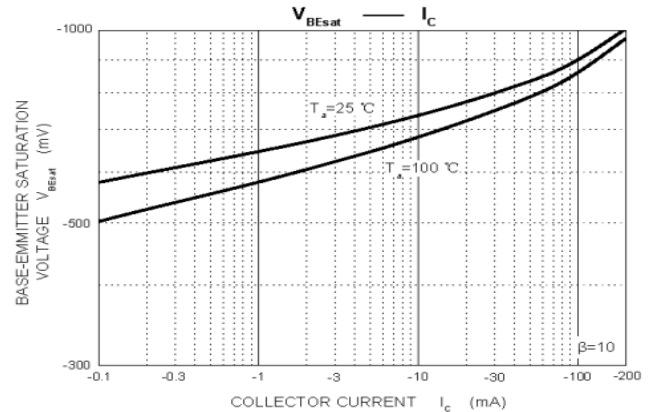
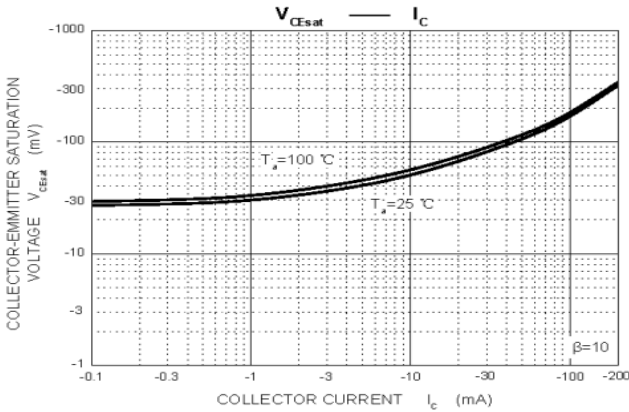
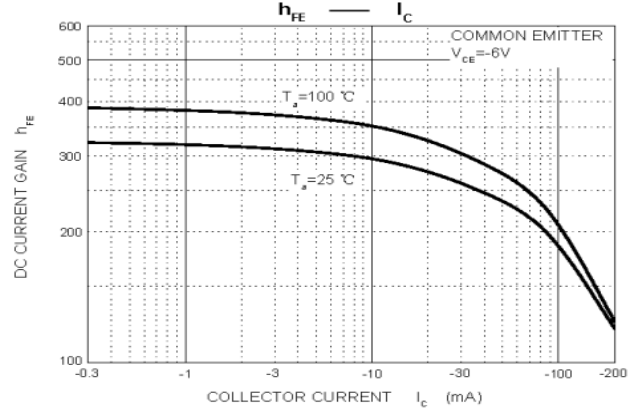
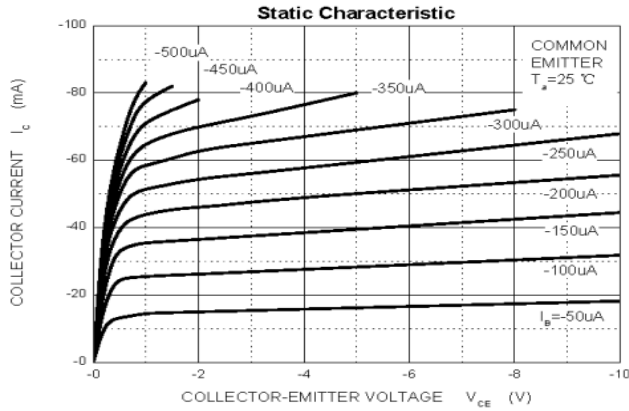
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60	-	-	V	$I_C = -50\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	-	-		$I_C = -1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-		$I_E = -50\mu\text{A}, I_C = 0$
Collector Cut-off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -60\text{V}, I_E = 0$
Emitter Cut-off Current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -6\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage <sup>1</sup>	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -50\text{mA}, I_B = -5\text{mA}$
Base-Emitter Saturation Voltage <sup>1</sup>	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -50\text{mA}, I_B = -5\text{mA}$
DC Current Gain	$h_{FE}$	180	-	390		$V_{CE} = -6\text{V}, I_C = -1\text{mA}$
Transition Frequency	$f_T$	-	140	-	MHz	$V_{CE} = -12\text{V}, I_C = -2\text{mA}, f = 30\text{MHz}$
Collector Output Capacitance	$C_{ob}$	-	3.5	-	pF	$V_{CB} = -12\text{V}, I_E = 0, f = 1\text{MHz}$

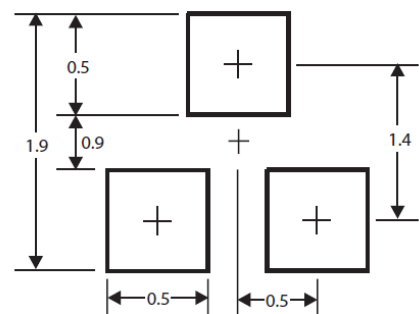
Note:

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

**CHARACTERISTIC CURVES**



**Mounting Pad Layout**



\*Dimensions in millimeters