

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

FEATURE

- Low Current (Max. 150mA)
- Low Voltage

CLASSIFICATION OF h_{FE}

Product-Rank	2SC5658-Q-C	2SC5658-R-C	2SC5658-S-C
Range	120~270	180~390	270~560
Marking	BQ	BR	BS

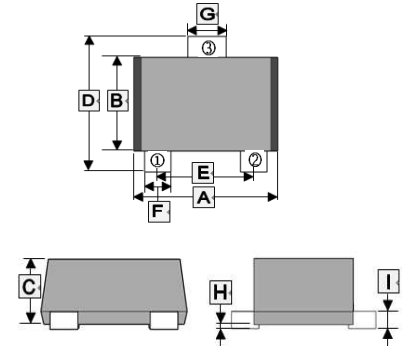
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-723	8K	7 inch

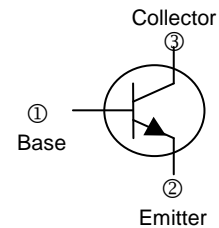
ORDER INFORMATION

Part Number	Type
2SC5658-Q-C	Lead (Pb)-free and Halogen-free
2SC5658-R-C	
2SC5658-S-C	

SOT-723



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.150	1.250	F	0.170	0.270
B	0.750	0.850	G	0.270	0.370
C	-	0.500	H	0	0.050
D	1.150	1.250	I	-	0.150
E	0.800TYP.				



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	50	V
Emitter-Base Voltage	V_{EB0}	7	V
Collector Current-Continuous	I_C	150	mA
Collector Power Dissipation	P_C	100	mW
Junction, Storage Temperature	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	$V_{(BR)CB0}$	60	-	-	V	$I_C=50\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CE0}$	50	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EB0}$	7	-	-	V	$I_E=50\mu\text{A}, I_C=0$
Collector Cut-off Current	I_{CB0}	-	-	0.1	μA	$V_{CB}=60\text{V}, I_E=0$
Emitter Cut-off Current	I_{EB0}	-	-	0.1	μA	$V_{EB}=7\text{V}, I_C=0$
DC Current Gain	h_{FE}	120	-	560		$V_{CE}=6\text{V}, I_C=1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.4	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Transition Frequency	f_T	-	180	-	MHz	$V_{CE}=12\text{V}, I_C=2\text{mA}, f=100\text{MHz}$
Collector Output Capacitance	C_{ob}	-	-	3.5	pF	$V_{CB}=12\text{V}, I_E=0, f=1\text{MHz}$

CHARACTERISTIC CURVES

Static Characteristic

