

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

FEATURE

- LOW $V_{CE(sat)}$, $V_{CE(sat)}=0.15V(Typ.) (I_C/I_B=500mA/50mA)$
- Complements to 2SB1132

MARKING

DAR

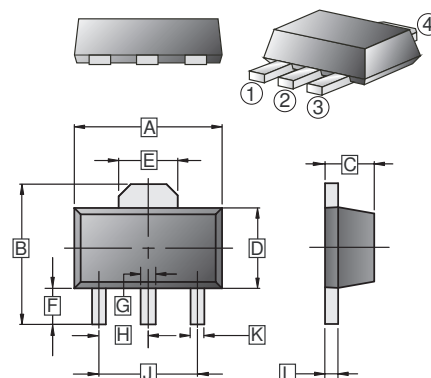
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7 inch

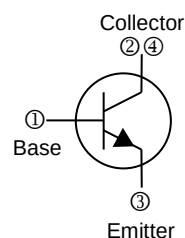
ORDER INFORMATION

Part Number	Type
2SD1664-R	Lead (Pb)-free
2SD1664-R-C	Lead (Pb)-free and Halogen-free

SOT-89



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50 TYP.	
C	1.40	1.60	J	3.00 TYP.	
D	2.25	2.60	K	0.32	0.52
E	1.55 TYP.		L	0.35	0.44
F	0.89	1.20			



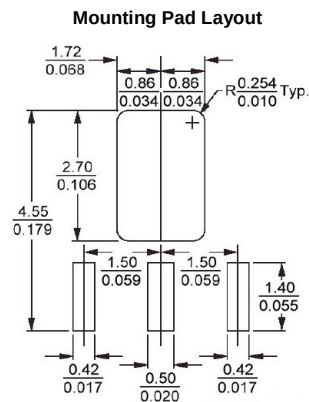
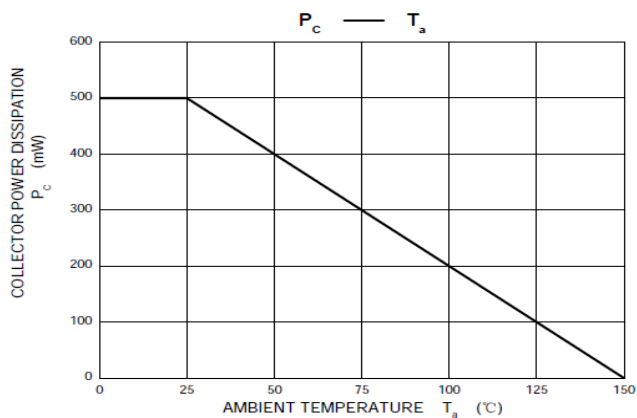
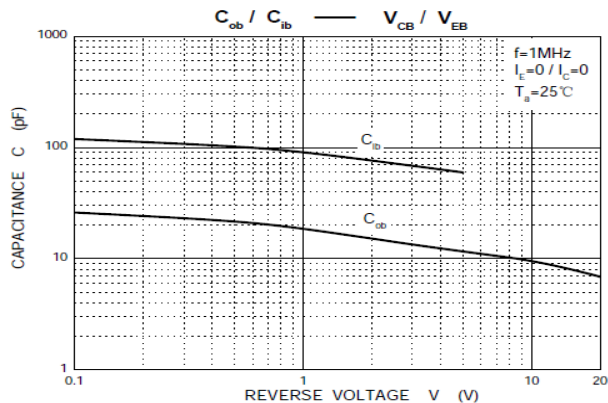
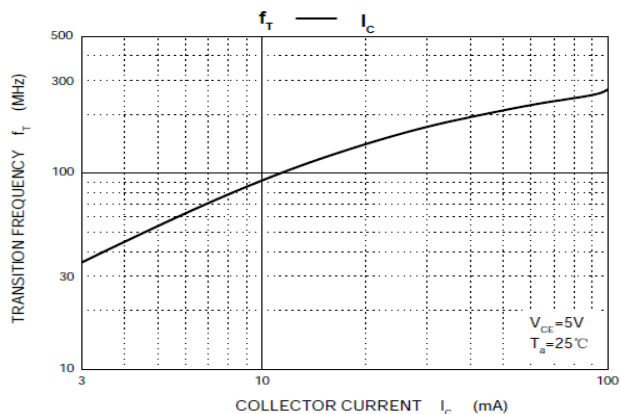
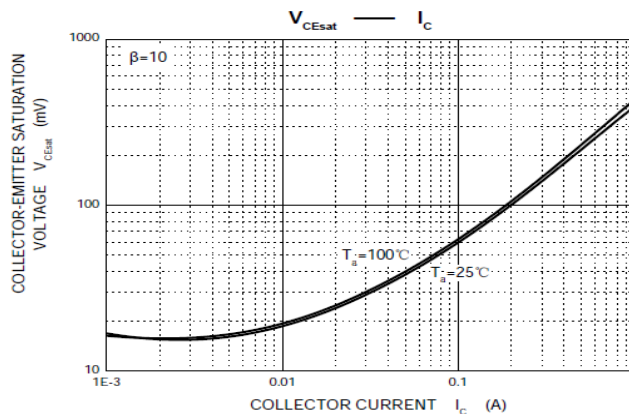
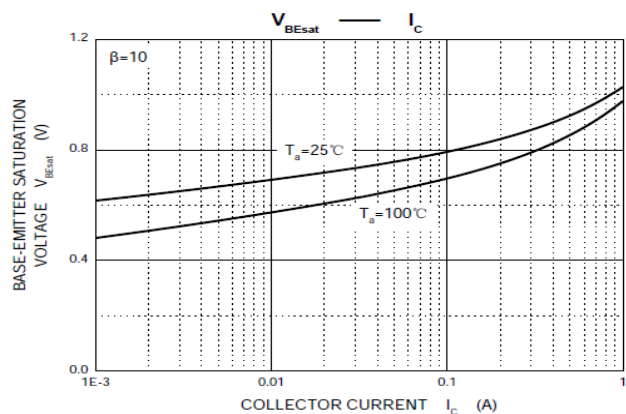
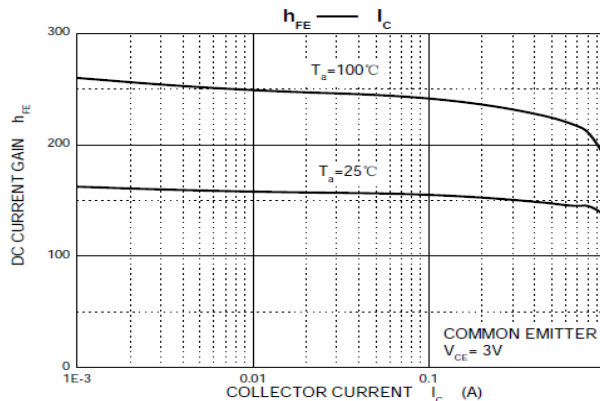
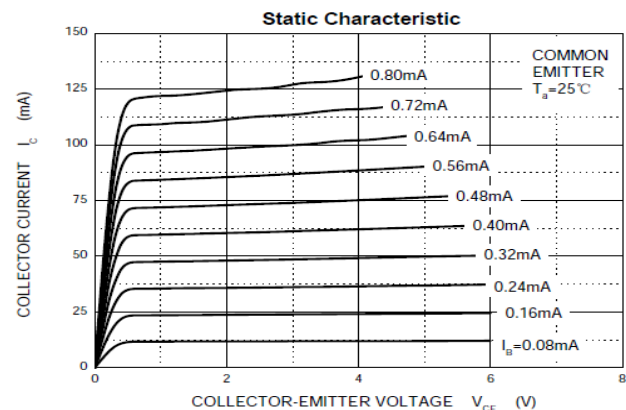
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	32	
Emitter-Base Voltage	V_{EBO}	5	
Continuous Collector Current	I_C	1	A
Collector Power Dissipation	P_C	500	mW
Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	40	-	-	V	$I_C=50\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	32	-	-		$I_C=1mA, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-		$I_E=50\mu A, I_C=0$
Collector Cut-off Current	I_{CBO}	-	-	0.5	μA	$V_{CB}=20V, I_E=0$
Emitter Cut-off Current	I_{EBO}	-	-	0.5		$V_{EB}=4V, I_C=0$
DC Current Gain	h_{FE}	180	-	390		$V_{CE}=3V, I_C=100mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.4	V	$I_C=0.5A, I_B=50mA$
Transition Frequency	f_T	-	150	-	MHz	$V_{CE}=5V, I_C=50mA, f=100MHz$
Output Capacitance	C_{OB}	-	15	-	pF	$V_{CB}=10V, I_E=0, f=1MHz$

CHARACTERISTIC CURVES



*Dimensions in millimeters