

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

FEATURE

- LOW $V_{CE(sat)}$

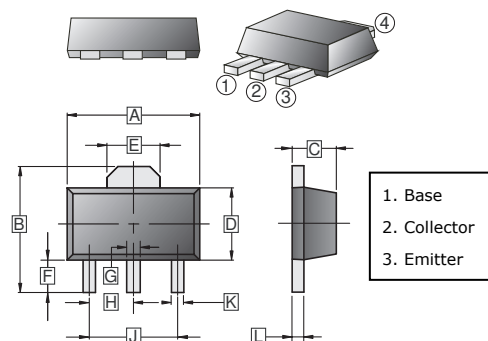
MARKING

DT

PACKAGE INFORMATION

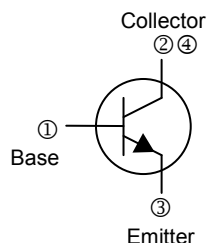
Package	MPQ	Leader Size
SOT-89	1K	7 inch

SOT-89



ORDER INFORMATION

Part Number	Type
2SD2391	Lead (Pb)-free
2SD2391-C	Lead (Pb)-free and Halogen-free



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	2	A
Collector Power Dissipation	P_C	0.5	W
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	$V_{(BR)CBO}$	60	-	-	V	$I_C=50\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	60	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=50\mu\text{A}, I_C=0$
Collector Cut-off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=50\text{V}, I_E=0$
Emitter Cut-off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	120	-	270		$V_{CE}=2\text{V}, I_C=0.5\text{A}$
	$h_{FE(2)}$	45	-	-		$V_{CE}=2\text{V}, I_C=1.5\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.35	V	$I_C=1\text{A}, I_B=50\text{mA}$
Transition Frequency	f_T	-	210	-	MHZ	$V_{CE}=2\text{V}, I_C=0.5\text{A}, f=100\text{MHZ}$
Output Capacitance	C_{ob}	-	21	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHZ}$

CHARACTERISTIC CURVES

