

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

FEATURES

- Small Flat Package
- General Purpose Application

CLASSIFICATION OF $h_{FE(1)}$

Product-Rank	2SD2153-U	2SD2153-V
Range	560~1200	820~1800

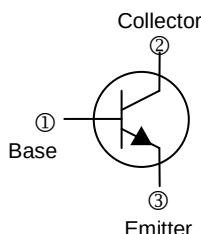
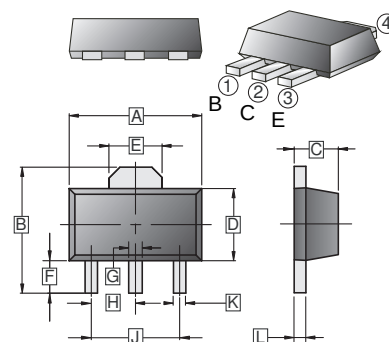
MARKING

DN

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7 inch

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	1.50	1.85	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}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	2	A
Pulsed Collector Current ¹	I_{CP}	3	A
Collector Power Dissipation	P_C	0.5	W
Maximum Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CBO}$	30	-	-	V	$I_C=50\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	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}	-	-	0.5	μA	$V_{CB}=20\text{V}, I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.5	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain ¹	h_{FE}	560	-	1800		$V_{CE}=6\text{V}, I_C=500\text{mA}$
Collector-Emitter Saturation voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=1\text{A}, I_B=20\text{mA}$
Transition Frequency	f_T	-	110	-	MHz	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$
Collector Output Capacitance	C_{OB}	-	22	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

Note:

1. Single pulse, PW=10mS

CHARACTERISTIC CURVES

