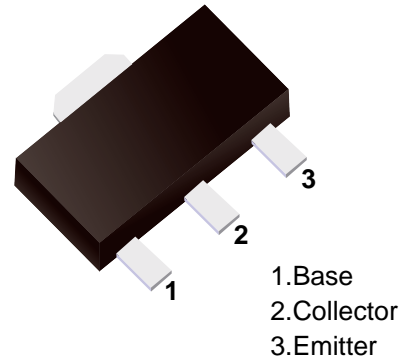


■ NPN Transistors

■ Features

- Small Flat Package
- General Purpose Application



■ Simplified outline(SOT-89)

■ Absolute Maximum Ratings Ta = 25°C

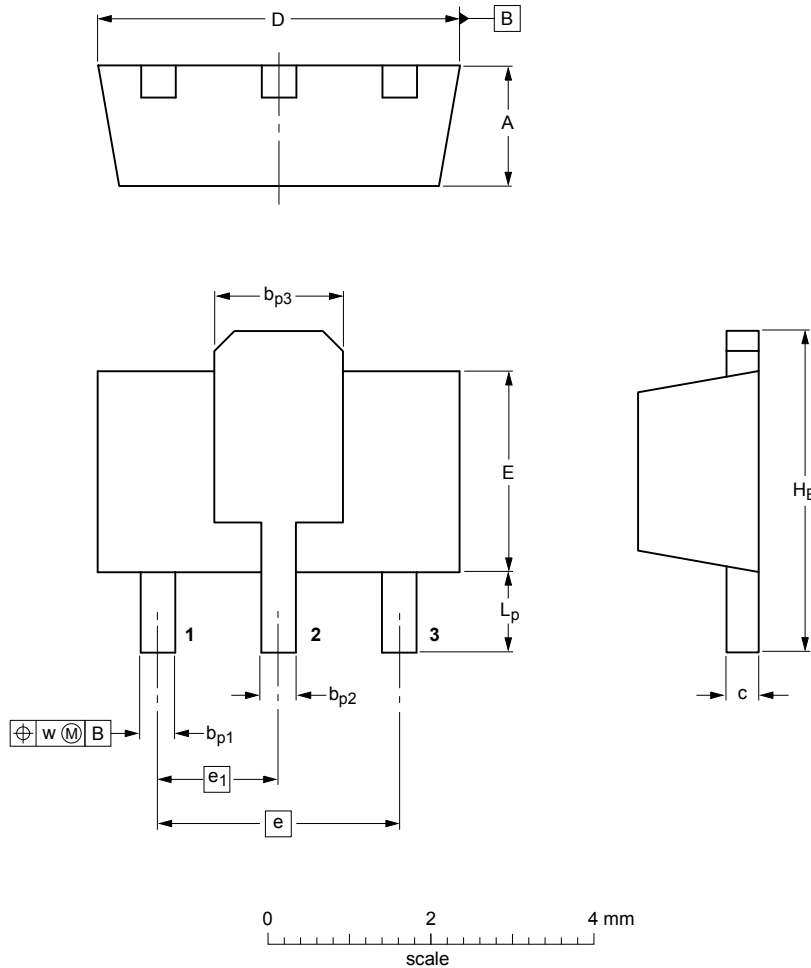
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CBO}$	160	V
Collector-Emitter Voltage	$V_{CEO}$	160	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current-Continuous	$I_C$	1	A
Collector Power Dissipation	$P_C$	0.5	mW
Junction & Storage Temperature	$T_J, T_{STG}$	150, -55~150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	160	-	-	V	$I_C=0.1mA, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	160	-	-	V	$I_C=10mA, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=10\mu A, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	1	$\mu A$	$V_{CB}=150V, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	1	$\mu A$	$V_{EB}=6V, I_C=0$
DC Current Gain	$h_{FE}$	100	-	320		$V_{CE}=5V, I_C=200mA$
Collector-Emitter Saturation voltage	$V_{CE(sat)}$	-	-	1	V	$I_C=500mA, I_B=50mA$
Base-Emitter voltage	$V_{BE}$	0.45	-	0.75	V	$I_C=5mA, V_{CE}=5V$
Transition Frequency	$f_T$	20	-	-	MHZ	$V_{CE}=5V, I_C=200mA$
Collector Output Capacitance	$C_{OB}$	-	-	20	pF	$V_{CB}=10V, I_E=0, f=1MHz$

■ Classification of hfe

Product-Rank	2SC2383-O	2SC2383-Y
Range	100~200	160~320



DIMENSIONS (mm are the original dimensions)

UNIT	A	$b_{p1}$	$b_{p2}$	$b_{p3}$	c	D	E	e	$e_1$	$H_E$	$L_p$	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13

### Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-89	Tape/Reel, 7" reel	1000	EIA-481-1