

2SC2383 Transistor(NPN)

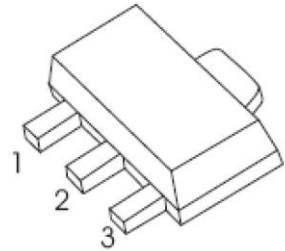
Feature

- High voltage: $V_{CEO}=160V$
- Large continuous collector current capability

MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Value	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
Power Dissipation	P_d	0.5	W
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}C$

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

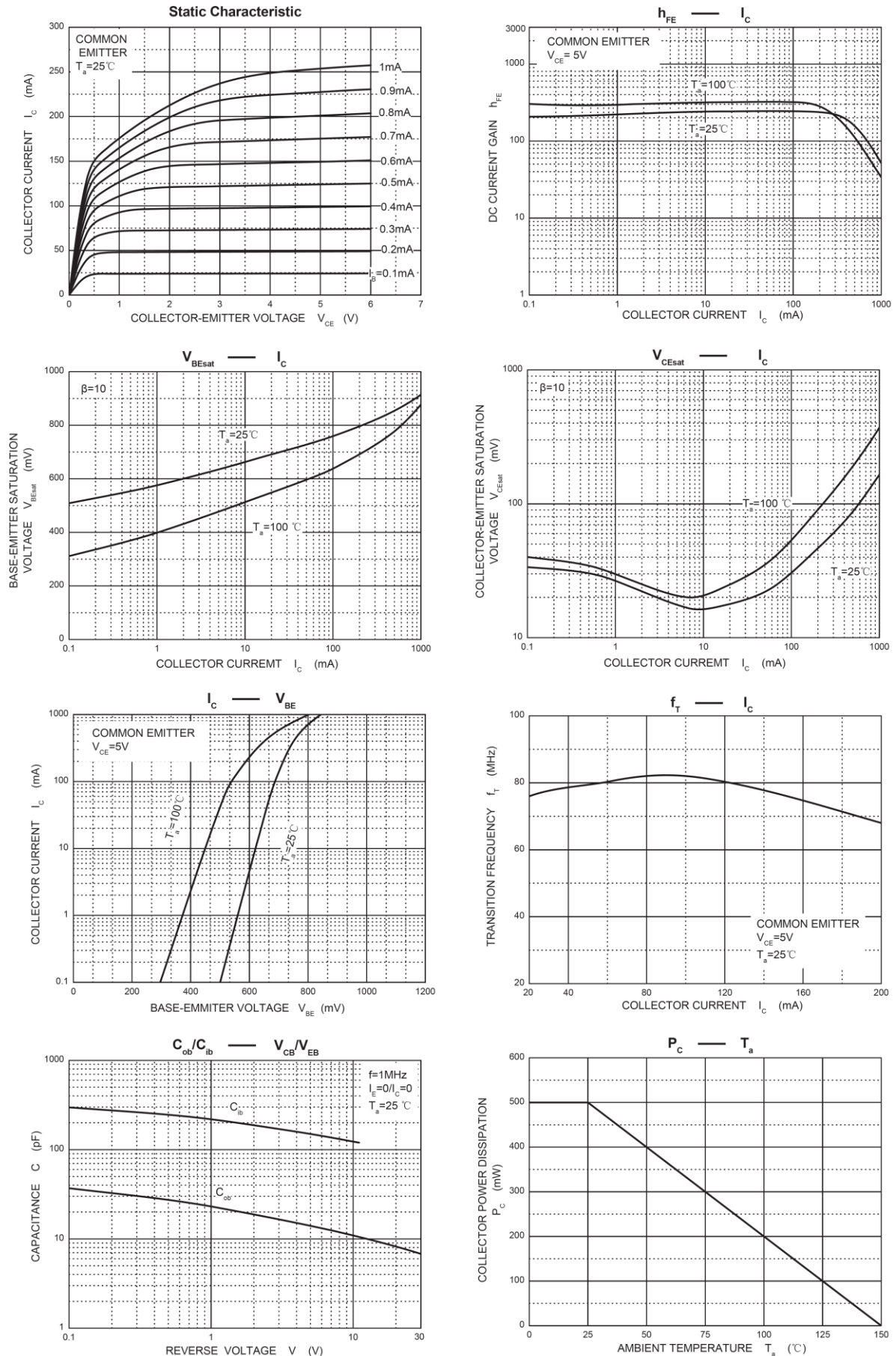
ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}C$ unless otherwise noted)

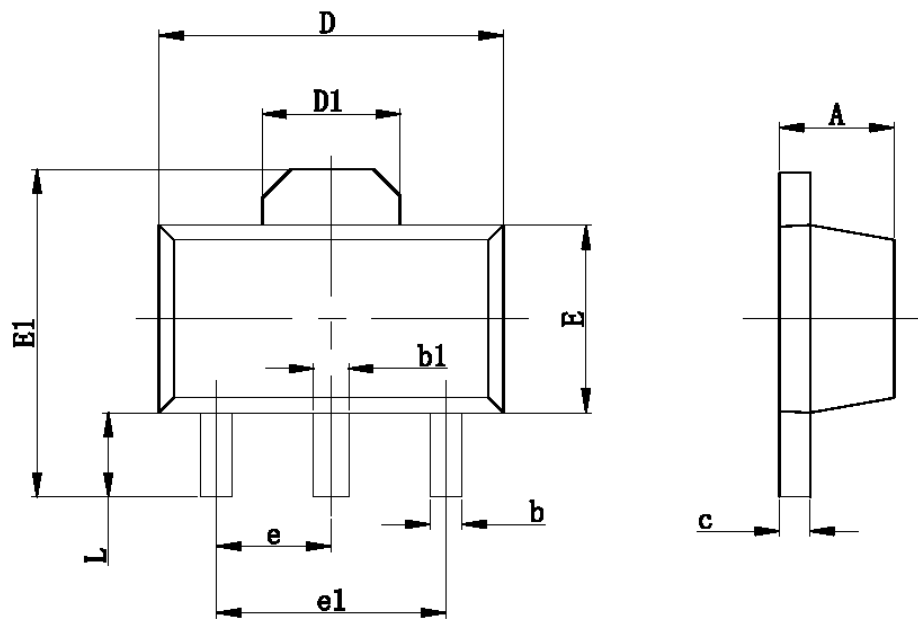
Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	160		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB}=150V, I_E=0$		1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6V, I_C=0$		1	μA
DC current gain	h_{FE1}	$V_{CE}=5V, I_C=200mA$	100	320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		1	V
Base-emitter voltage	V_{BE}	$I_C=5mA, V_{CE}=5V$	0.45	0.75	V
Transition frequency	f_T	$V_{CE}=5V, I_C=200mA,$	20		MHZ
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		20	pF

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	100~200	160~320
Marking	2383	

Typical Characteristics



SOT-89-3L Package Outline Dimensions


Symbol	Dimensions in millimeters		Dimensions in inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.197
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550REF		0.061REF	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	3.000TYP		0.118TYP	
L	0.900	1.200	0.035	0.047