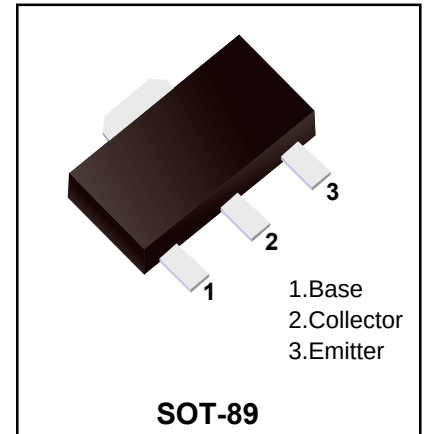


Plastic-Encapsulate Transistors

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
Collector Power Dissipation	P_D	0.5	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

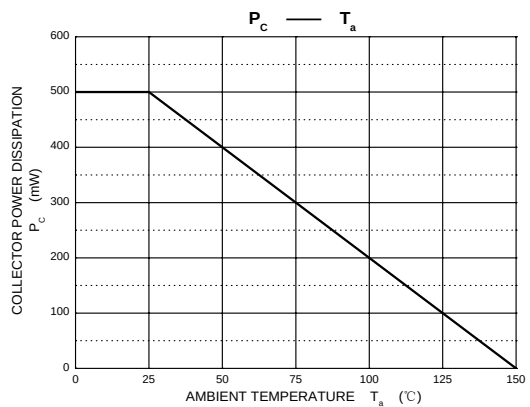
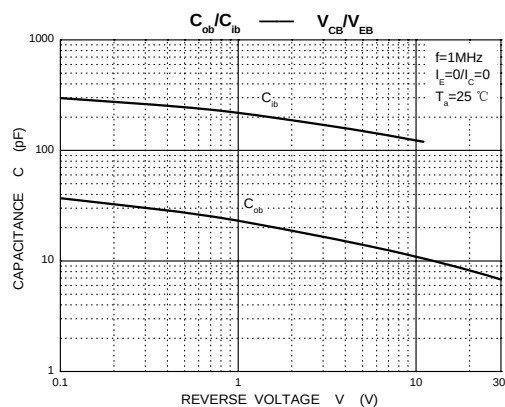
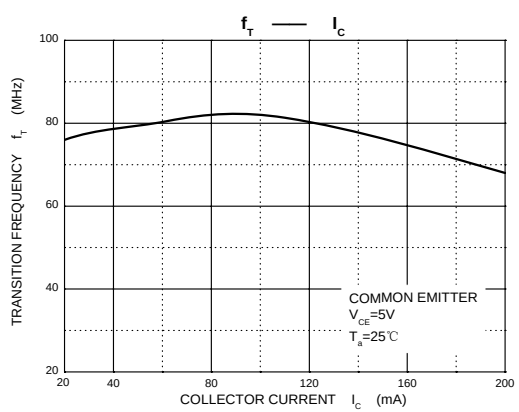
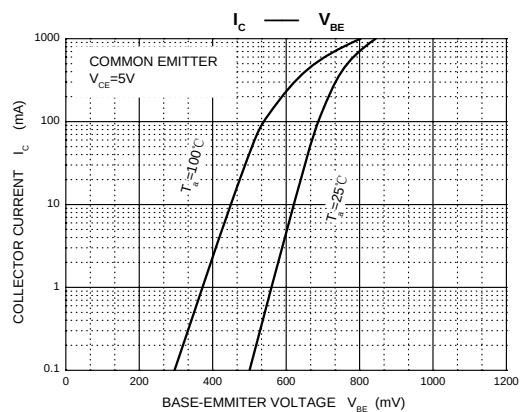
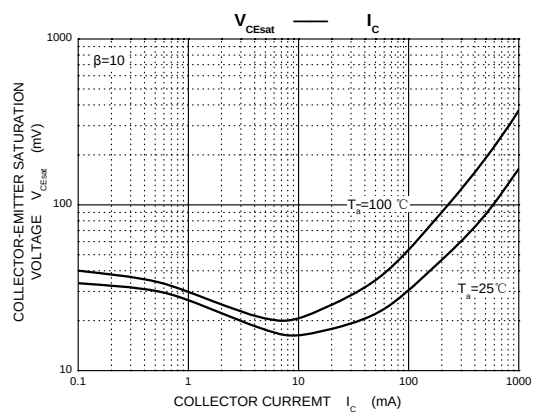
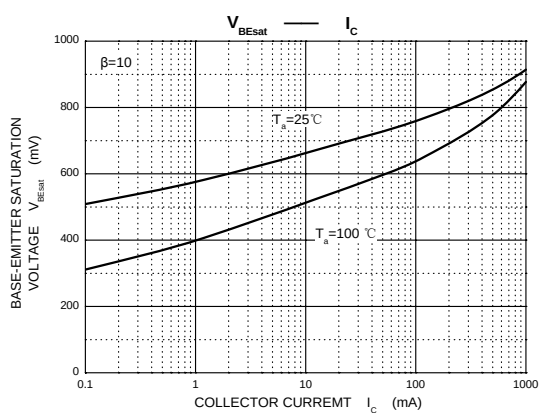
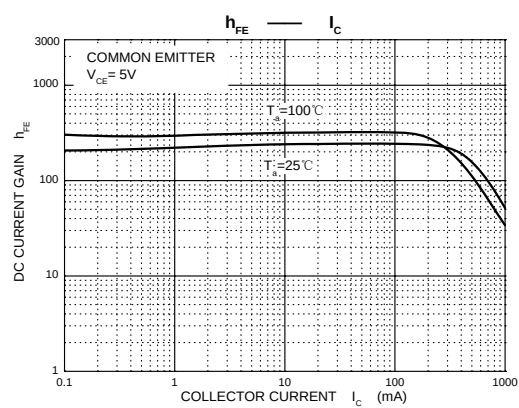
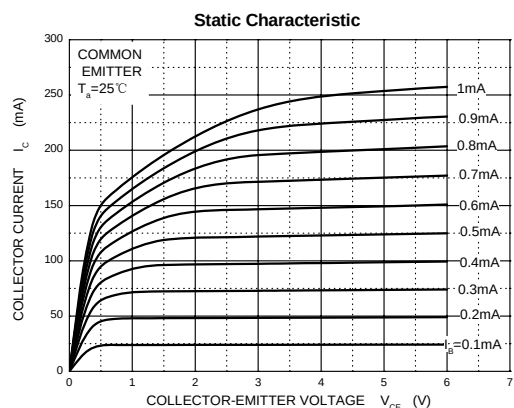
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

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

CLASSIFICATION OF h_{FE}

Rank	2SC2383SI-O	2SC2383SI-Y
Range	100-200	160-320
Marking	2383O	2383Y

Typical Characteristics



Ordering information

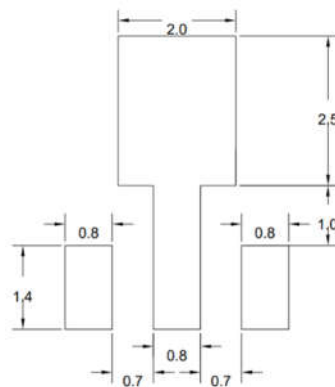
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

Disclaimer

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