

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## 2SC2383-x-MS

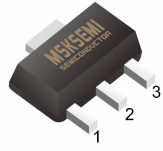

Product specification

TRANSISTOR (NPN)

## FEATURE

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

## Reference News

SOT-89	MARKING
 <p>1. BASE 2. COLLECTOR 3. EMITTER</p>	 <p>2383</p>

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

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	160	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	1	A
$P_C$	Collector Power Dissipation	0.5	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature	-55~+150	$^{\circ}C$

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

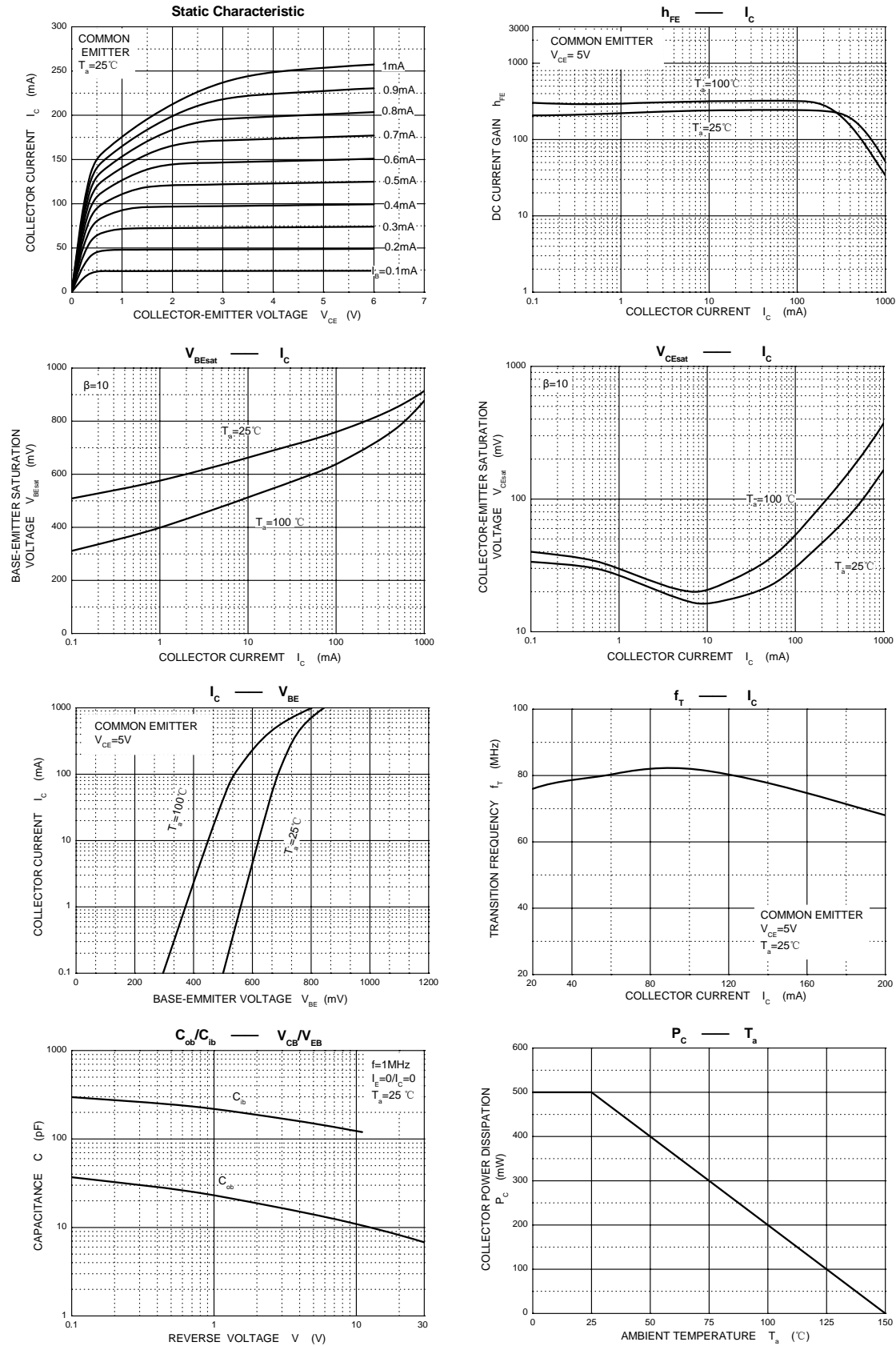
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	160		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 150V, I_E = 0$		1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 6V, I_C = 0$		1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = 5V, I_C = 200mA$	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

\* pulse test

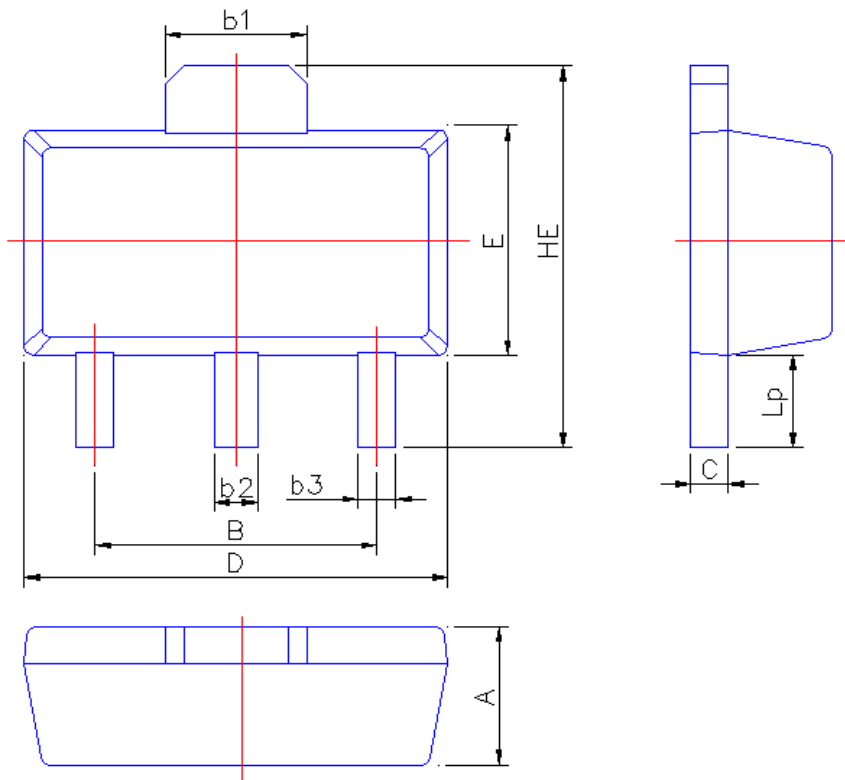
## CLASSIFICATION OF $h_{FE}$

Rank	2SC2383-O-MS	2SC2383-Y-MS
Range	100-200	160-320

## Typical Characteristics



PACKAGE MECHANICAL DATA



SOT-89

Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	2.95	3.05
b1	1.45	1.70
b2	0.45	0.60
b3	0.35	0.50
C	0.35	0.50
D	4.40	4.60
E	2.35	2.55
HE	3.90	4.40
Lp	0.90	1.10

REELSPECIFICATION

P/N	PKG	QTY
2SC2383-x-MS	SOT-89	1000

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