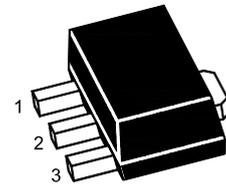


## Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

### FEATURE

- High voltage:  $V_{CE0}=160V$
- Large continuous collector current capability



1.Base 2.Collector 3.Emitter  
SOT-89 Plastic Package

**MARKING: 2383**

### 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	O	Y
Range	100-200	160-320

# Typical Characteristics

# 2SC2383

