



DONGGUAN NANJING ELECTRONICS LTD.,

## TO-92L Plastic-Encapsulate Transistors

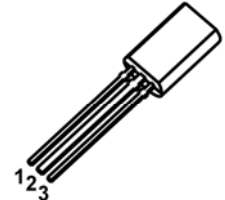
### 2SC2383 TRANSISTOR (NPN)

#### FEATURE

- High Voltage:  $V_{CE0}=160V$
- Large Continuous Collector Current Capability
- Complementary to 2SA1013

#### TO-92L

1. EMITTER
2. COLLECTOR
3. BASE



#### MAXIMUM RATINGS ( $T_a=25\text{ }^\circ\text{C}$ 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	0.75	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C=100\mu\text{A}$ , $I_E=0$	160		V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C=10\text{mA}$ , $I_B=0$	160		V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E=10\mu\text{A}$ , $I_C=0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=150V$ , $I_E=0$		1	$\mu\text{A}$
Collector cut-off current	$I_{CER}$	$V_{CB}=150V$ , $R_{EB}=10M\Omega$		10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V$ , $I_C=0$		1	$\mu\text{A}$
DC current gain	$h_{FE1}$	$V_{CE}=5V$ , $I_C=200\text{mA}$	60	320	
	$h_{FE2}$	$V_{CE}=5V$ , $I_C=10\text{mA}$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$ , $I_B=50\text{mA}$		1	V
Base-emitter voltage	$V_{BE}$	$I_C=5\text{mA}$ , $V_{CE}=5V$		0.75	V
Transition frequency	$f_T$	$V_{CE}=5V$ , $I_C=200\text{mA}$	20		MHz

#### CLASSIFICATION OF $h_{FE1}$

Rank	R	O	Y
Range	60-120	100-200	160-320

# Typical Characteristics

# 2SC2383

