



**SOT-89 Plastic-Encapsulate Transistors**

**2SD2150** TRANSISTOR (NPN)

**FEATURES**

Power dissipation

$P_{CM}$  : 0.5 W ( $T_{amb}=25^{\circ}C$ )

Collector current

$I_{CM}$  : 3 A

Collector-base voltage

$V_{(BR)CBO}$  : 40 V

Operating and storage junction temperature range

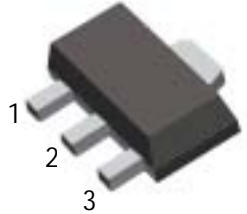
$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$

SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50 \mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50 \mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.1A$	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=100mA$			0.5	V
Transition frequency	$f_T$	$V_{CE}=2V, I_C=0.5A, f=100MHz$		290		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		25		pF

**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	Q	R	S
Range	120-270	180-390	270-560
Marking	CFQ	CFR	CFS