

### 2SD874A TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$P_{CM}$ : 500 mW ( $T_{amb}=25^{\circ}C$ )

Collector current

$I_{CM}$ : 1 A

Collector-base voltage

$V_{(BR)CBO}$ : 60 V

Operating and storage junction temperature range

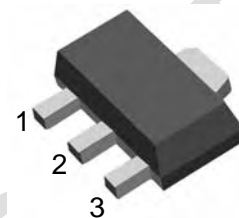
$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$

#### 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	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=2mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=10V, I_C=500mA$	85		340	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=1A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			1.2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=50mA, f=200MHz$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		20		pF

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

Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	YQ	YR	YS