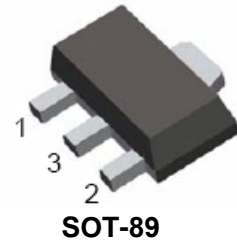


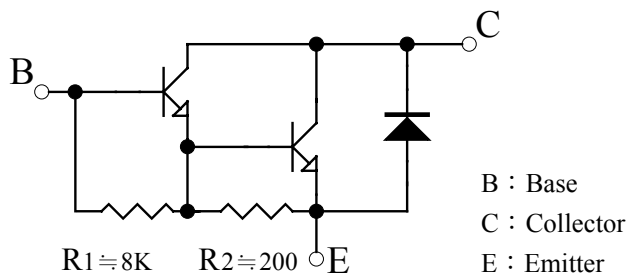
### DESCRIPTION

The **2SD2195** is designed for use in general purpose amplifier and low speed switching application.



**SOT-89**

### Equivalent Circuit



### ABSOLUTE MAXIMUM RATING ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	150	V
Collector-Emitter Voltage		$V_{CEO}$	100	V
Emitter-Base Voltage		$V_{EBO}$	4	V
Collector Current	DC	$I_C$	2	A
	Pulse(Note 2)		4	
Collector Dissipation		$P_C$	0.6	W
Junction Temperature		$T_J$	+125	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. Pulse test: Pulse Width  $\leq 350\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

### THERMAL DATA


PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-89	$\theta_{JA}$	208	$^\circ\text{C/W}$

Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

**■ ELECTRICAL CHARACTERISTICS**

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu A, I_E=0$	150			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=20\mu A, I_B=0$	100			V
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	$V_{CE}=4V, I_C=2A$			2.8	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$			1	mA
Collector Cutoff Current	$I_{CEO}$	$V_{CE}=50V, I_B=0$			2	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			2.5	mA
<b>ON CHARACTERISTICS</b>						
DC Current Gain (Note)	$h_{FE}$	$V_{CE}=4V, I_C=1A$	1000			
		$V_{CE}=4V, I_C=2A$	500			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=2A, I_B=2mA$			2	V
<b>SMALL-SIGNAL CHARACTERISTICS</b>						
Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0A, f=1MHz$			200	pF

Note: Pulse test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

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