

isc Silicon PNP Darlington Power Transistor

2SB880

DESCRIPTION

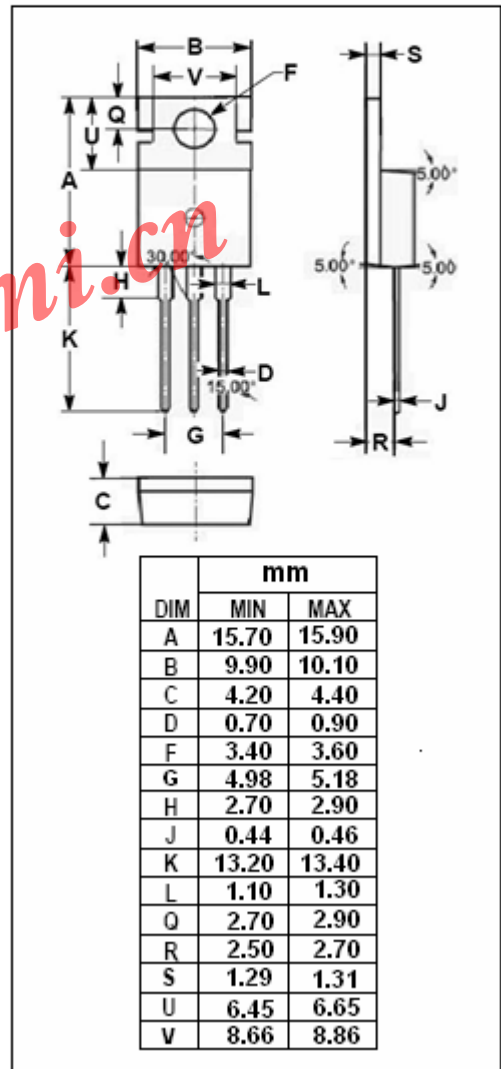
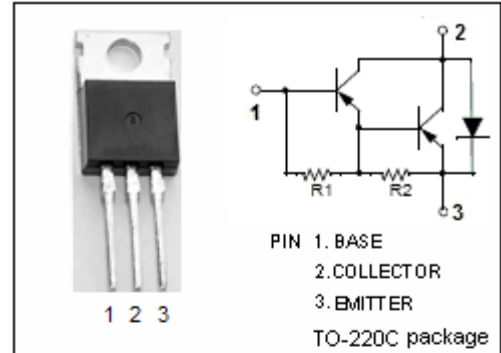
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min}) @ I_C = -2\text{A}$
- Wide Area of Safe Operation
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(\text{sat})} = -1.5\text{V}(\text{Max}) @ I_C = -2\text{A}$
- Complement to Type 2SD1190

APPLICATIONS

- Designed for motor drivers, printer hammer drivers, relay drivers, voltage regulators applications.

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-4	A
I_{CM}	Collector Current-Peak	-6	A
P_C	Collector Power Dissipation $T_C = 25^\circ\text{C}$	30	W
	Collector Power Dissipation $T_a = 25^\circ\text{C}$	1.75	
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}$, $R_{BE} = \infty$	-60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -5\text{mA}$, $I_E = 0$	-70			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -4\text{mA}$			-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -4\text{mA}$			-2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}$, $I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-3	mA
h_{FE}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -2\text{V}$	2000			
f_T	Current-Gain—Bandwidth Product	$I_C = -2\text{A}$; $V_{CE} = -5\text{V}$		20		MHz

Switching times

t_{on}	Turn-on Time	$R_L = 10\ \Omega$, $V_{CC} \approx -20\text{V}$ $I_C = -2\text{A}$; $I_{B1} = -I_{B2} = -4\text{mA}$		0.5		μs
t_{stg}	Storage Time			1.4		μs
t_f	Fall Time			1.2		μs