

isc Silicon PNP Darlington Power Transistor

2SB1225

DESCRIPTION

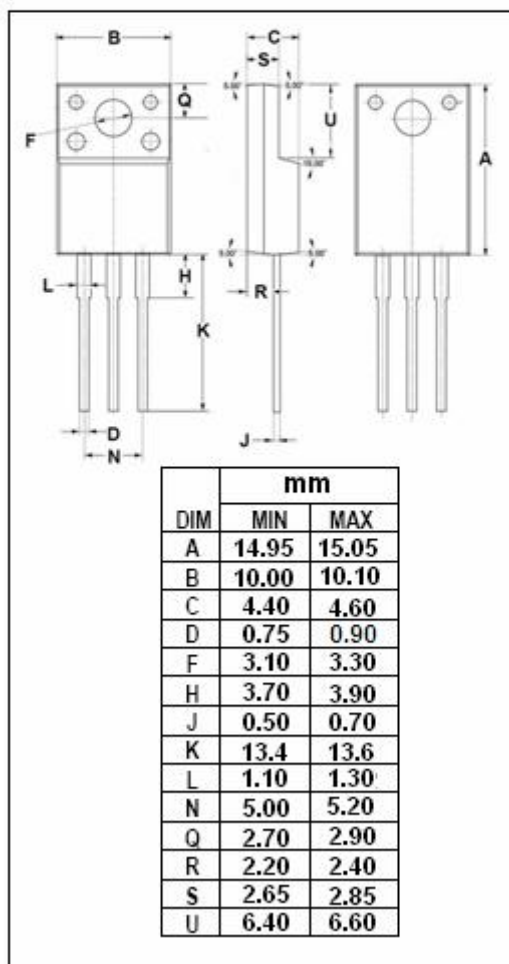
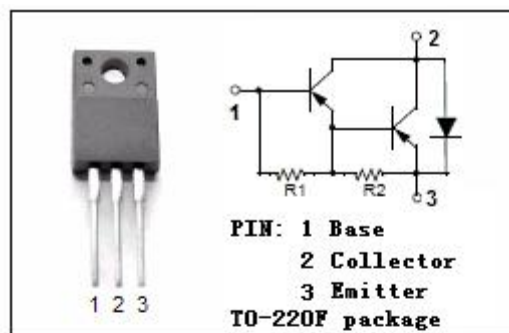
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min})@ (V_{CE} = -2V, I_C = -5A)$
- Large Current Capability and Wide ASO.
- Low collector-to-emitter saturation voltage
- Complement to Type 2SD1827
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in control of motor drivers, printer hammer drivers, and constant-voltage regulators.

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

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	-10	A
I_{CM}	Collector Current-Peak	-15	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	30	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50mA$; $R_{BE} = \infty$	-60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -5mA$; $I_E = 0$	-70			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5A$; $I_B = -10mA$			-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5A$; $I_B = -10mA$			-2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40V$; $I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5V$; $I_C = 0$			-3.0	mA
h_{FE}	DC Current Gain	$I_C = -5A$; $V_{CE} = -2V$	2000			
f_T	Current-Gain—Bandwidth Product	$I_C = -5A$; $V_{CE} = -5V$		20		MHz

Switching Times

t_{on}	Turn-on Time	$I_C = -5A$, $I_{B1} = -I_{B2} = -5mA$, $V_{CC} = -20V$; $R_L = 4 \Omega$		0.5		μs
t_{stg}	Storage Time			1.5		μs
t_f	Fall Time			1.7		μs

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