

isc Silicon NPN Darlington Power Transistor

2SD2495

DESCRIPTION

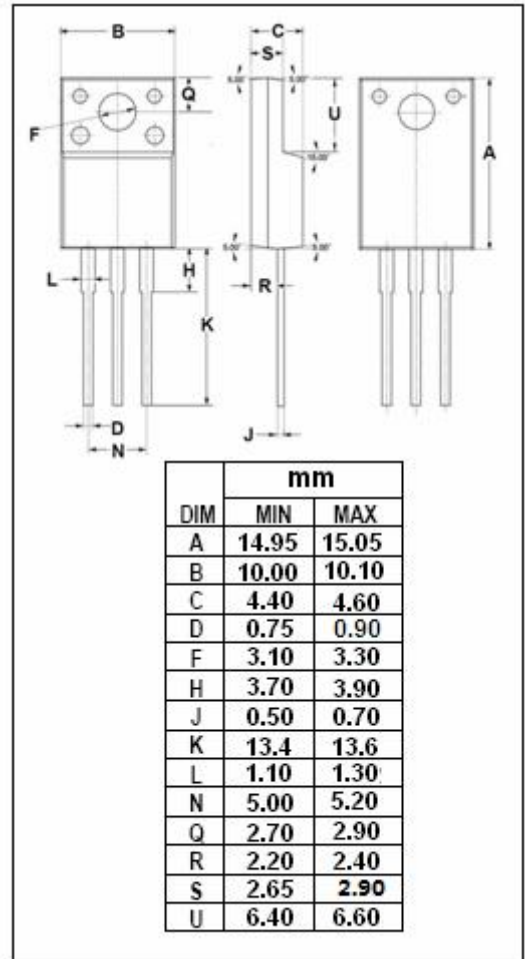
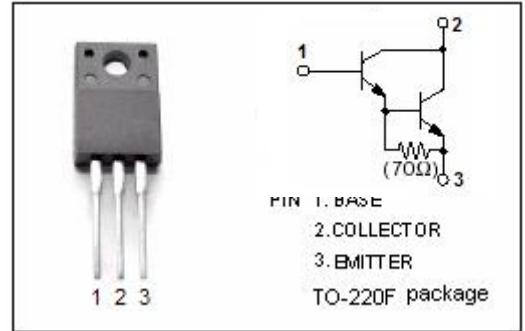
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 110V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 5000(\text{Min.}) @ (I_C = 5A, V_{CE} = 4V)$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.5V(\text{Max}) @ (I_C = 5A, I_B = 5mA)$
- Complement to Type 2SB1626
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio, series regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	110	V
V_{CEO}	Collector-Emitter Voltage	110	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	30	W
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	$I_C = 30mA$; $I_B = 0$	110			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5A$; $I_B = 5mA$			2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 5A$; $I_B = 5mA$			3.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 110V$; $I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5V$; $I_C = 0$			100	μA
h_{FE}	DC Current Gain	$I_C = 5A$; $V_{CE} = 4V$	5000			
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = 10V$; $f_{test} = 1MHz$		55		pF
f_T	Current-Gain—Bandwidth Product	$I_E = -0.5A$; $V_{CE} = 12V$		60		MHz

Switching Times

t_{on}	Turn-on Time	$V_{CC} = 30V$, $R_L = 6\Omega$, $I_C = 5A$; $I_{B1} = -I_{B2} = 5mA$,		0.8		μs
t_{stg}	Storage Time			6.2		μs
t_f	Fall Time			1.1		μs

◆ h_{FE} Classifications

O	P	Y
5000-12000	6500-20000	15000-30000

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