

isc Silicon NPN Darlington Power Transistor

2SD2384

DESCRIPTION

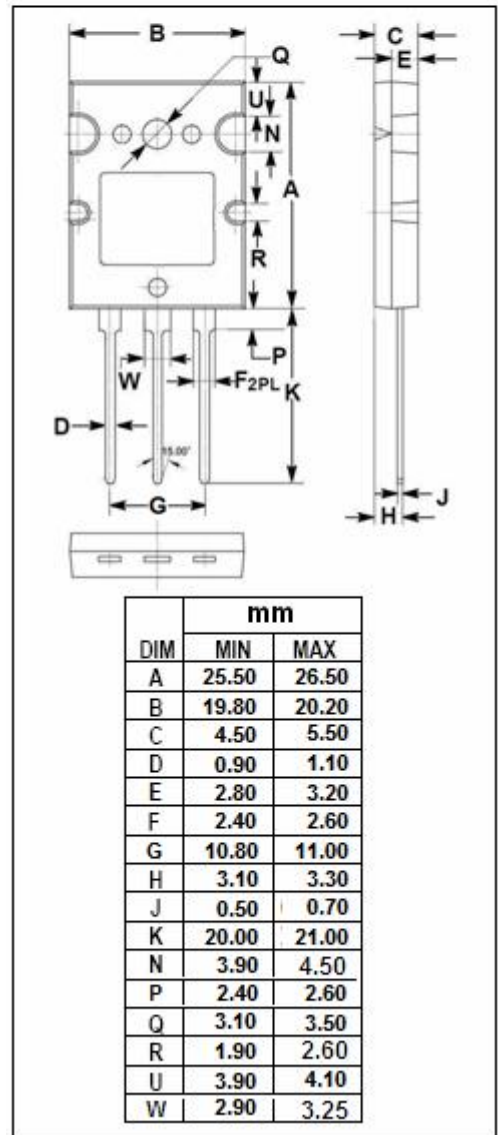
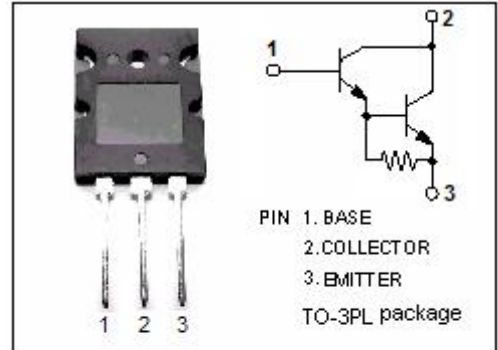
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 140V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 5000(\text{Min})@I_C = 6A$
- Complement to Type 2SB1555
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	7	A
I_B	Base Current-Continuous	0.1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD2384****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA ; I _B = 0	140			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 6mA			2.5	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 6A ; V _{CE} = 5V			3.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 140V ; I _E =0			5	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C =0			5	μ A
h _{FE-1}	DC Current Gain	I _C = 6A ; V _{CE} = 5V	5000		30000	
h _{FE-2}	DC Current Gain	I _C = 10A ; V _{CE} = 5V	2000			
C _{OB}	Output Capacitance	I _E =0 ; V _{CB} = 10V; f _{test} = 1.0MHz		90		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 5V		30		MHz

◆ **h_{FE-1} Classifications**

A	B	C
5000-12000	9000-18000	15000-30000

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