

isc Silicon PNP Darlington Power Transistor

2SB963-Z

DESCRIPTION

- With TO-252(DPAK) packaging
- Very high DC current gain
- Monolithic darlington transistor with integrated antiparallel collector-emitter diode
- Complement to type 2SD1286-Z
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

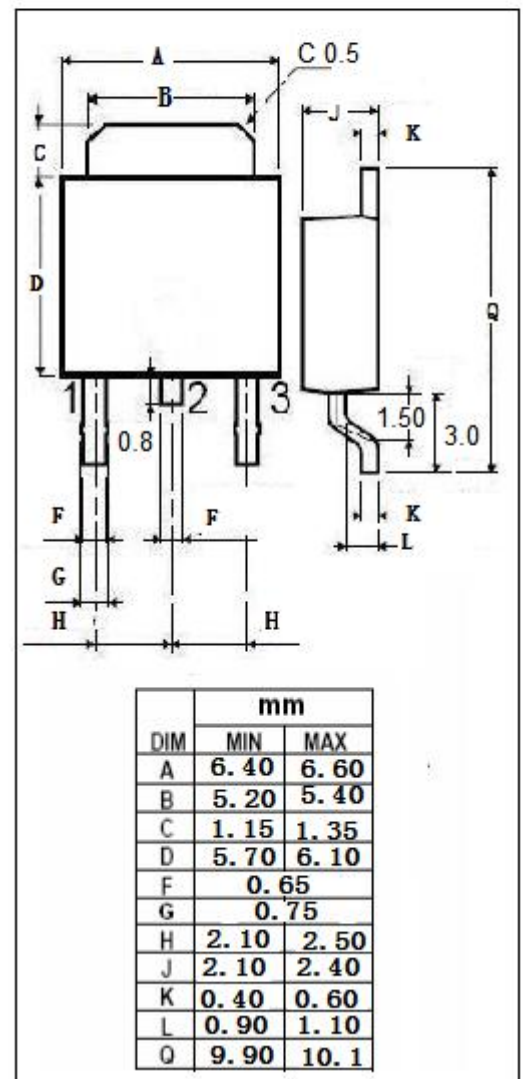
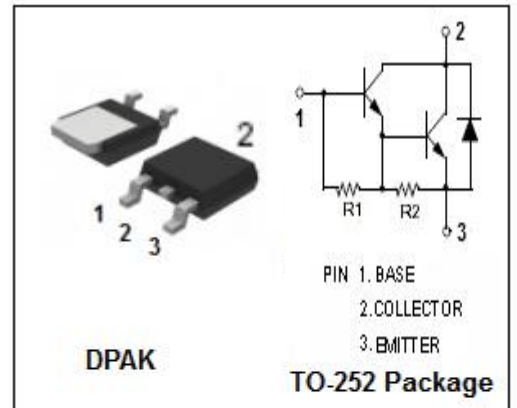
- AC-DC motor control
- Electronic ignition
- Alternator regulator

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current-Continuous	-1	A
I_{CM}	Collector Current-Peak	-2	A
P_T	Total Power Dissipation	2.0	W
T_j	Max.Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^{\circ}\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -1mA, I _B = 0	-60		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =-0.5A, I _B = -50mA		-1.5	V
V _{BE(sat)1}	Base-Emitter Saturation Voltage	I _C =-0.5A, I _B = -50mA		-2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} =-60V, I _E = 0		-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0		-10	μ A
h _{FE-1}	DC Current Gain	I _C = -0.2A ; V _{CE} = -2V	1000	-	
h _{FE-2}	DC Current Gain	I _C = -0.5A ; V _{CE} = -2V	2000	30000	

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