

isc Silicon PNP Power Transistor

STD888

DESCRIPTION

- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -0.7V(\text{Max})(I_C = -5A; I_B = -0.25A)$
- DC Current Gain $-h_{FE} = 150(\text{Min})@ I_C = -0.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

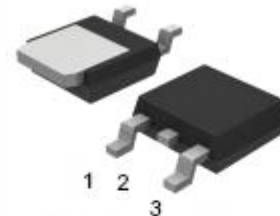
APPLICATIONS

- Power amplifier applications
- Voltage regulation in bias supply circuits applications
- Switching regulator in battery charger applications

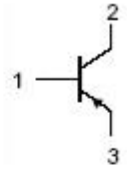
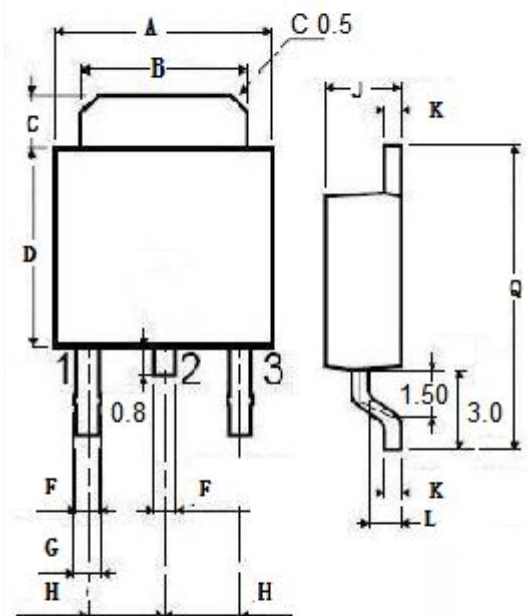
ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-5	A
I_{CM}	Collector Current-Peak	-10	A
P_C	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

DPAK



T0-252 package


PIN: 1. BASE
2. COLLECTOR
3. EMITTER


DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E =-0.1mA, I _C =0	-6			V
V _{(BR)CEO} *	Collector-Emitter Breakdown Voltage	I _C =-10mA, I _B =0	-30			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C =-0.1mA, I _E =0	-60			V
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = -0.5A; I _B = -5mA			-0.15	V
		I _C = -2A; I _B = -50mA			-0.25	V
		I _C = -5A; I _B = -0.25A			-0.7	V
		I _C = -6A; I _B = -0.25A			-0.7	V
		I _C = -8A; I _B = -0.4A			-1.0	V
		I _C = -10A; I _B = -0.5A			-1.5	V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C = -2A; I _B = -50mA			-1.1	V
		I _C = -6A; I _B = -0.25A			-1.4	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -30V; I _E = 0			-10	nA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -6V; I _C =0			-10	nA
h _{FE} *	DC Current Gain	I _C = -10mA; V _{CE} = -1V	150			
		I _C = -0.5A; V _{CE} = -1V	150		300	
		I _C = -5A; V _{CE} = -1V	75			

* Pulse Test: PW≤300μs, Duty Cycle≤1.5%

Switching Times; Resistive Load

t _d	Delay Time	I _C = -3A; V _{CC} = 20V; I _{B1} = I _{B2} = -60mA			220	ns
t _r	Rise Time				210	ns
t _s	Storage Time				300	ns
t _f	Fall Time				100	ns

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