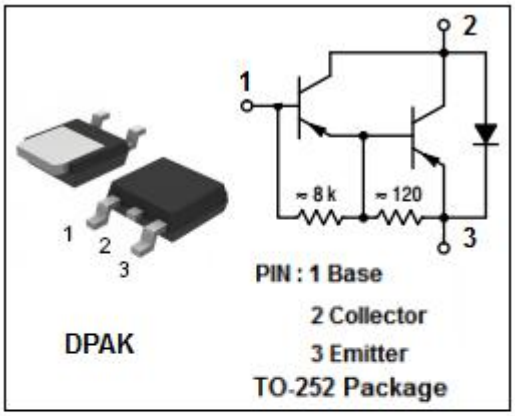
isc Silicon PNP Darlington Power Transistor — MJD127

DESCRIPTION

- Low Collector-Emitter saturation voltage
- Lead formed for surface mount applications
- High DC current gain
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

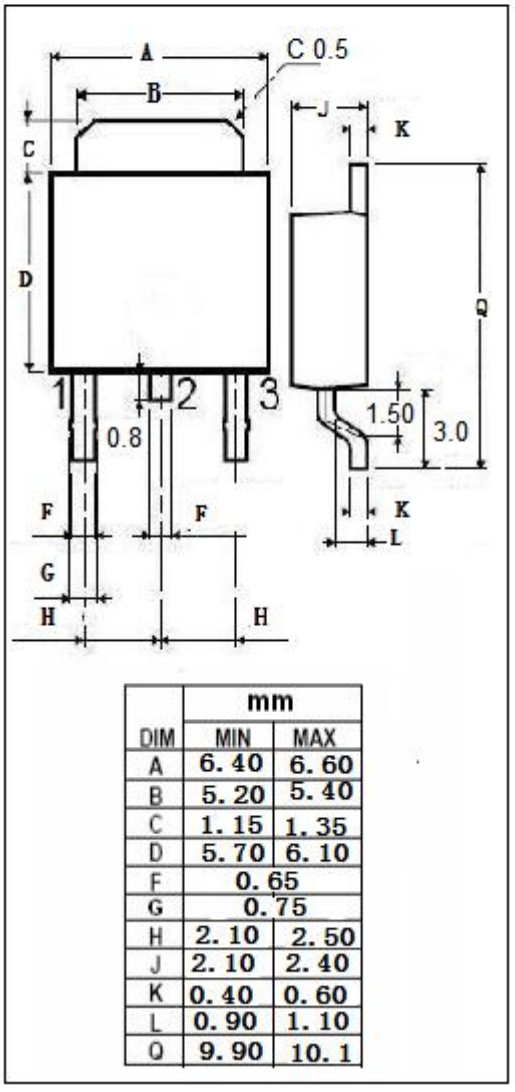


APPLICATIONS

- Designed for general purpose amplifier and low speed switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
P_C	Total Power Dissipation @ Ta=25℃	1.75	W
P_C	Collector Power Dissipation T_C=25℃	20	W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	71.4	℃/W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -30mA; I_B= 0	-100			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=-4A; I_B= -16mA			-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C=-8A; I_B= -80mA			-4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=-8A; I_B= -80mA			-4.5	V
$V_{BE(ON)}$	Base-Emitter voltage	I_C= -4A; V_{CE}= -4V			-2.8	V
I_{CEO}	Collector Cutoff Current	V_{CE}=-50V; I_E= 0			-10	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}=-5V; I_C= 0			-2	mA
h_{FE1}	DC Current Gain	I_C= -4A; V_{CE}=- 4V	1000		12000	
h_{FE2}	DC Current Gain	I_C=-8A; V_{CE}= -4V	100			
f_T	Current-Gain—Bandwidth Product	I_C=-3A; V_{CE}=- 4V	4			MHz
C_{OB}	Output Capacitance	I_E=0; V_{CB}= -10V; f= 1.0MHz		300		pF