

isc Silicon PNP Darlington Power Transistor
MJD117
DESCRIPTION

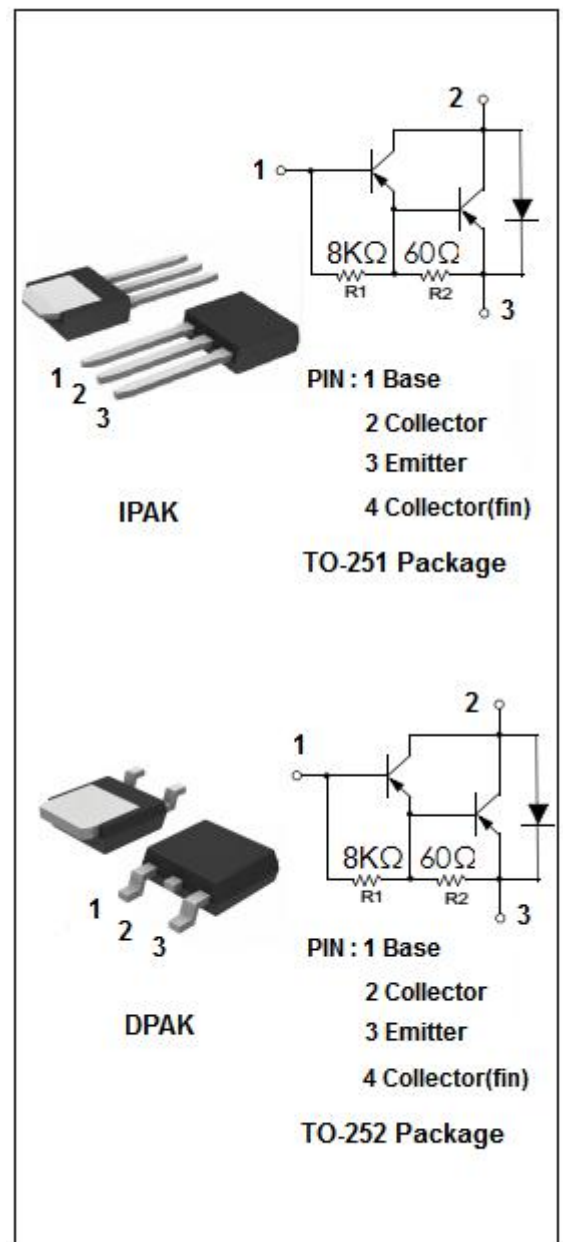
- High DC current gain
- Built-in a damper diode at E-C
- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, “-I” suffix)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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	-2	A
I_{CP}	Collector Current-Pulse	-4	A
P_C	Collector Power Dissipation $T_a=25^{\circ}\text{C}$	1.75	W
P_C	Collector Power Dissipation $T_C=25^{\circ}\text{C}$	20	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

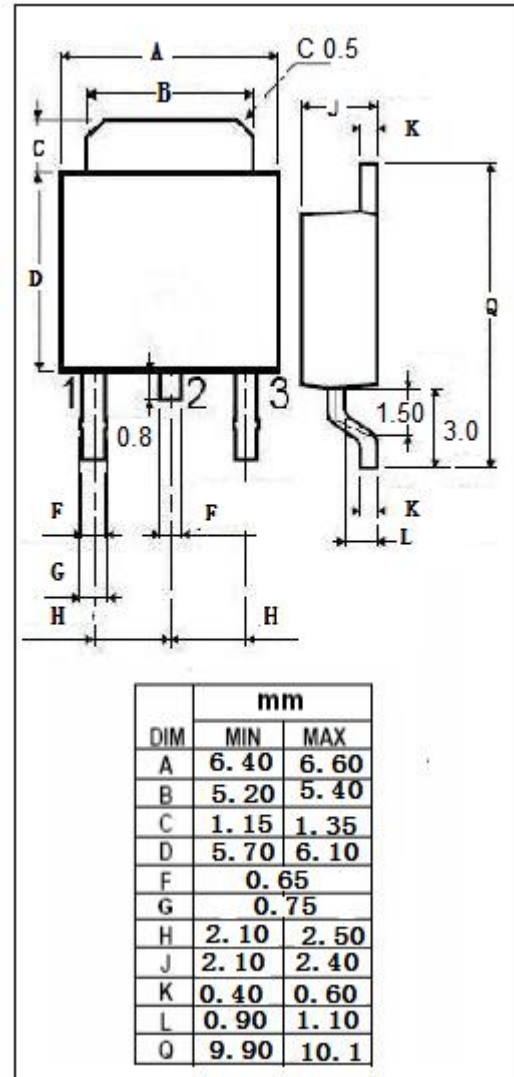
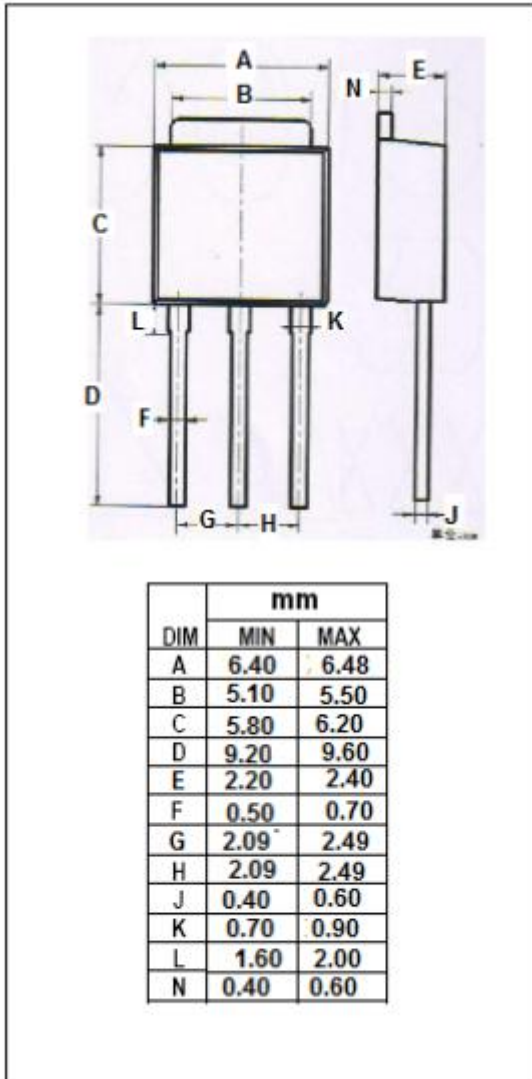
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1*}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B =- 8mA			-2.0	V
V _{CE(sat)-2*}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B =- 40mA			-3.0	V
V _{BE(sat)*}	Base-Emitter Saturation Voltage	I _C =- 4A; I _B =- 40mA			-4.0	V
V _{BE(on)*}	Base-Emitter On Voltage	I _C =-2A; V _{CE} =-3V			-2.8	V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -30mA; I _B = 0	-100			V
I _{CBO}	Collector Cutoff Current	V _{CB} =- 50V; I _E = 0			-20	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-2	mA
h _{FE-1*}	DC Current Gain	I _C =-0.5A; V _{CE} = -3V	500			
h _{FE-2*}	DC Current Gain	I _C = -2A; V _{CE} =-3V	1K		12K	
h _{FE-3*}	DC Current Gain	I _C =- 4A; V _{CE} =-3V	200			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = -10V; f= 1.0MHz		200		pF
f _T	Current-Gain—Bandwidth Product	I _C = -0.75A; V _{CE} = -10V		25		MHz

*:Pulse test PW≤300us,duty cycle≤2%

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Outline Drawing



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