

isc Silicon NPN Power Transistor

MJD340

DESCRIPTION

- Collector–Emitter Sustaining Voltage–
: $V_{CEO(SUS)} = 300\text{ V}(\text{Min})$
- Low Collector Saturation Voltage–
: $V_{CE(sat)} = 1.0\text{V}(\text{Max.})@ I_C = 50\text{mA}$
- DPAK for Surface Mount Applications
- Complement to Typ MJD350
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

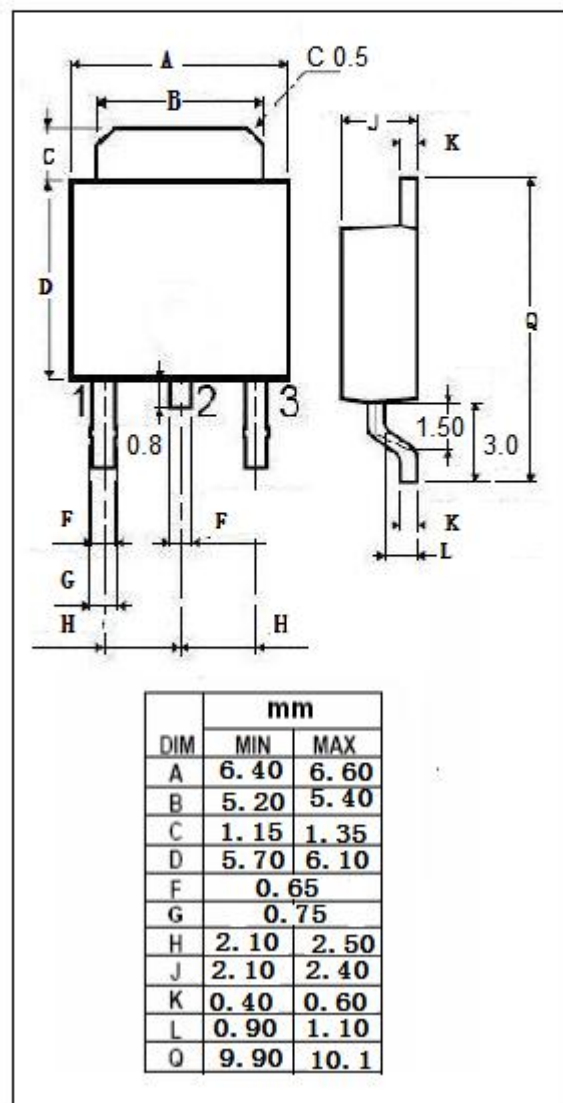
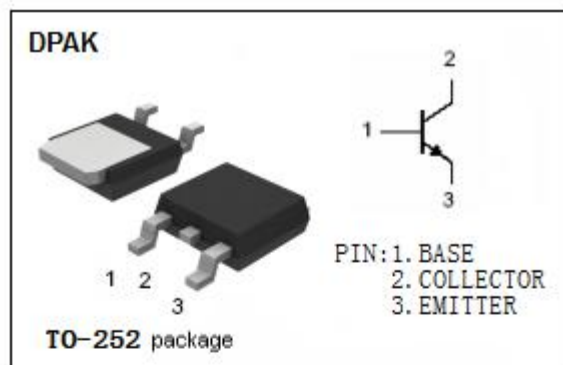
- Designed for line operated audio output amplifier, switchmode power supply drivers and other switching applications..

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	0.5	A
I_{CM}	Collector Current-Peak	0.75	A
P_C	Collector Power Dissipation $T_C=25^\circ\text{C}$	15	W
	Collector Power Dissipation $T_a=25^\circ\text{C}$	1.56	
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	6.25	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	80	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**MJD340****ELECTRICAL CHARACTERISTICS** $T_c = 25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 1.0\text{mA}; I_B = 0$	300		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1.0\text{mA}; I_E = 0$	300		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1.0\text{mA}; I_C = 0$	3		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}; I_B = 5\text{mA}$		1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 300\text{V}; I_E = 0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 3\text{V}; I_C = 0$		0.1	mA
h_{FE}	DC Current Gain	$I_C = 50\text{mA}; V_{CE} = 10\text{V}$	30	240	