

isc Silicon NPN Power Transistor

MJ12005

DESCRIPTION

- Collector-Emitter Voltage-
 $V_{CEX} = 1500V$
- Safe Operation Area

APPLICATIONS

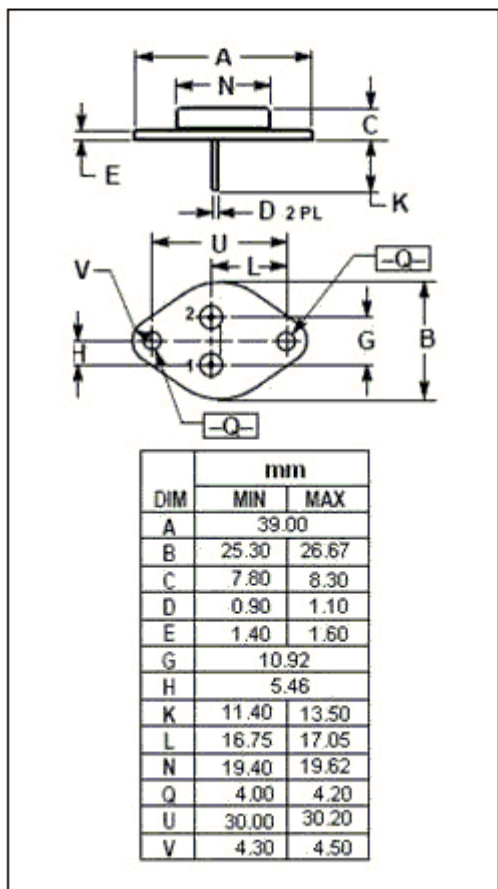
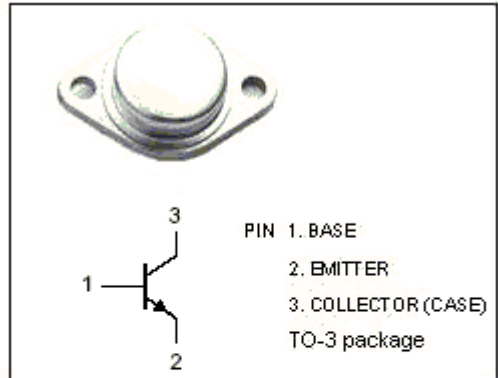
- Designed for use in deflection circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEX}	Collector-Emitter Voltage	1500	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_B	Base Current-Continuous	4	A
I_E	Emitter Current-Continuous	12	A
P_C	Collector Power Dissipation@ $T_C=25^{\circ}C$	100	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-65~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1.25	$^{\circ}C/W$



isc Silicon NPN Power Transistor**MJ12005****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}$; $I_B=0$	750			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}$; $I_B=1\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}$; $I_B=1\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}= 1500\text{V}$; $V_{BE}= 0$			0.25	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5\text{V}$; $I_C=0$			0.1	mA
h_{FE}	DC Current Gain	$I_C= 0.5\text{A}$; $V_{CE}= 5\text{V}$		12		
t_f	Fall Time	$I_C=5\text{A}$, $I_{B1}=1\text{A}$; $L_B=8\ \mu\text{H}$		0.4	1.0	μs