

isc Silicon NPN Power Transistor

2N4240

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

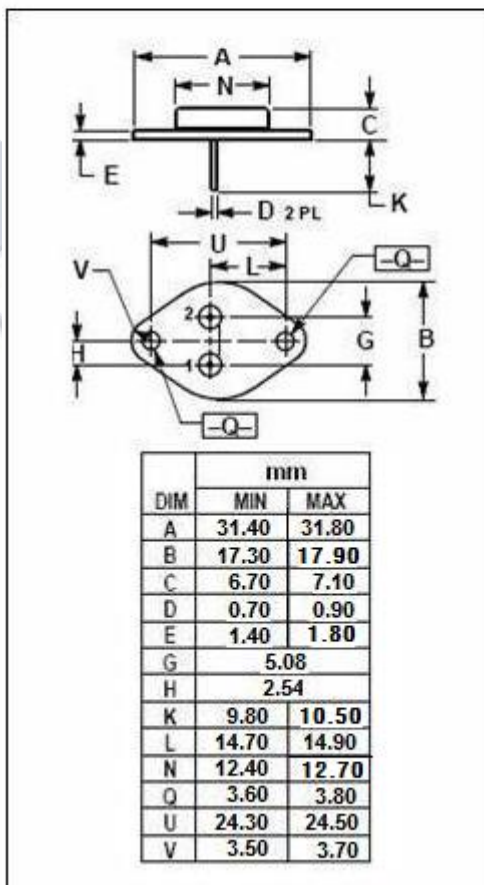
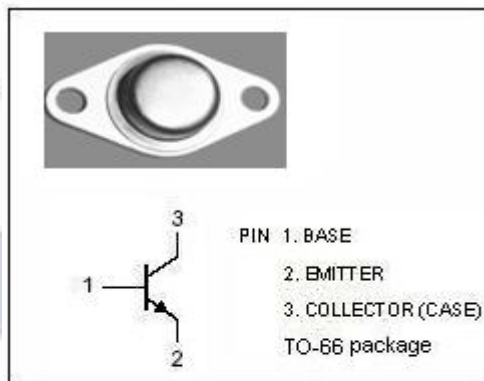
- Designed for switching regulator applications where high frequency and high voltage swings and required

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	500	V
V _{CEO}	Collector-Emitter Voltage	300	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current-Continuous	2	A
P _C	Collector Power Dissipation@T _C =25°C	35	W
T _J	Junction Temperature	-65~200	°C
T _{stg}	Storage Temperature	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	5.0	°C/W



isc Silicon NPN Power Transistor**2N4240****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}^*$	Collector-Emitter Sustaining Voltage	$I_C=200\text{mA}; I_B=0$	300		V
I_{CEO}	Collector Cutoff Current	$V_{CE}=150\text{V}; I_B=0$		0.5	mA
I_{CEX}	Collector-Emitter Leakage current	$V_{CE}=450\text{V}; V_{BE(OFF)}=1.5\text{V}$		2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}; I_C=0$		0.5	mA
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage	$I_C=0.75\text{A}; I_B=75\text{mA}$		1.0	V
$V_{BE(sat)}^*$	Base-Emitter Saturation Voltage	$I_C=0.75\text{A}; I_B=75\text{mA}$		1.8	V
$V_{BE(ON)}^*$	Base-Emitter On Voltage	$I_C=0.1\text{A}; V_{CE}=10\text{V}$		1.4	V
h_{FE-1}^*	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=10\text{V}$	40		
h_{FE-2}^*	DC Current Gain	$I_C=0.75\text{A}; V_{CE}=2\text{V}$	10	100	
h_{FE-3}^*	DC Current Gain	$I_C=0.75\text{A}; V_{CE}=10\text{V}$	30	150	

*:Pulse test:Pulse width=300us,duty cycle \leq 2%