

KSD741 KSP741

NPN Silicon Power Transistor, VCBO= 1050V, VCEO= 500V, IC= 2A

General Description

- High voltage, high speed power switching
- Suitable for switching regulator, inverters, motor controls

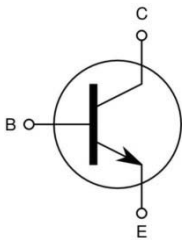
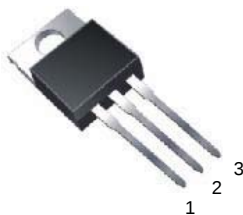
Features

- VCBO = 1050V
- VCEO = 500V
- VBEO = 15V
- IC = 2A

TO-252



TO-220



Ordering Information

Ordering number	Package	Pin Assignment			Packing
		1	2	3	
KSD741	TO-252	B	C	E	Reel
KSP741	TO-220	B	C	E	Tube

KSD741

KSP741

NPN Silicon Power Transistor, $V_{CBO} = 1050V$, $V_{CEO} = 500V$, $I_C = 2A$

Absolute Maximum Ratings

$T_C = 25^\circ C$ unless otherwise noted

CHARACTERISTICS	SYMBOL	RATING		UNIT
		TO-252	TO-220	
Collector-Base Voltage	V_{CBO}	1050		V
Collector-Emitter Voltage	V_{CEO}	500		V
Emitter-Base Voltage	V_{EBO}	15		V
Collector Current(DC)	I_C	2		A
Collector Current(Pulse)	I_{CP}	4		A
Base Current	I_B	1		A
Collector Dissipation($T_C = 25^\circ C$)	P_C	30	60	W
Junction Temperature	T_J	150		$^\circ C$
Storage Temperature	T_{STG}	-65~150		$^\circ C$

Electrical Characteristics ⁽¹⁾

$T_C = 25^\circ C$ unless otherwise noted

CHARACTERISTICS	SYMBOL	Test Condition	Min	Typ.	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	$I_C = 500\mu A$, $I_E = 0$	1050			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C = 5mA$, $I_B = 0$	500			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E = 1mA$, $I_C = 0$	15	19	24	V
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 15V$, $I_C = 0$			1	mA
DC Current Gain	h_{FE1}	$V_{CE} = 5V$, $I_C = 100mA$	48	70	100	
	h_{FE2}	$V_{CE} = 3V$, $I_C = 450mA$	25		50	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 0.7A$, $I_B = 0.14A$			0.5	V
		$I_C = 2.0A$, $I_B = 0.6A$			3.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2.0A$, $I_B = 0.6A$			1.5	V
Output Capacitance	C_{ob}	$V_{CB} = 10V$, $f = 0.1MHz$		23		pF
Storage Time	t_{stg}	$I_C = 500mA$, $I_B = 10mA$ (UI9600)	2		6	μs

Notes ;

1. Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycles $\leq 2\%$

Typical Characteristics

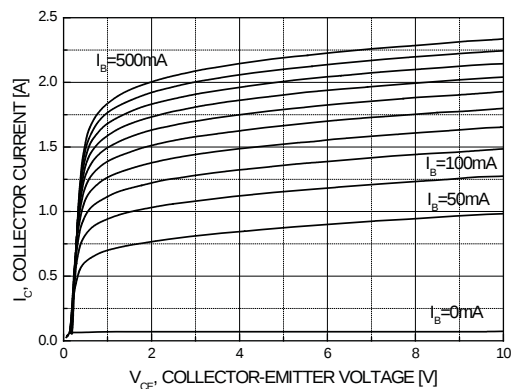


Figure 1. Static Characteristic



Figure 2. DC Current Gain

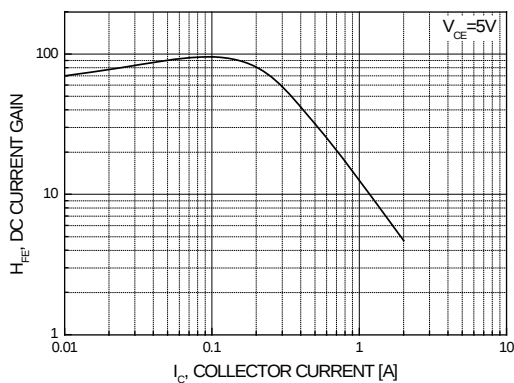


Figure 3. DC Current Gain

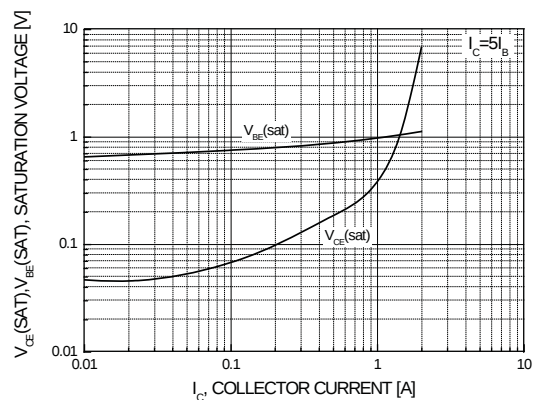


Figure 4. Saturation Voltage

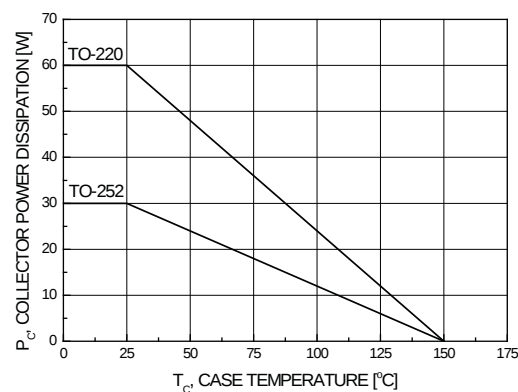
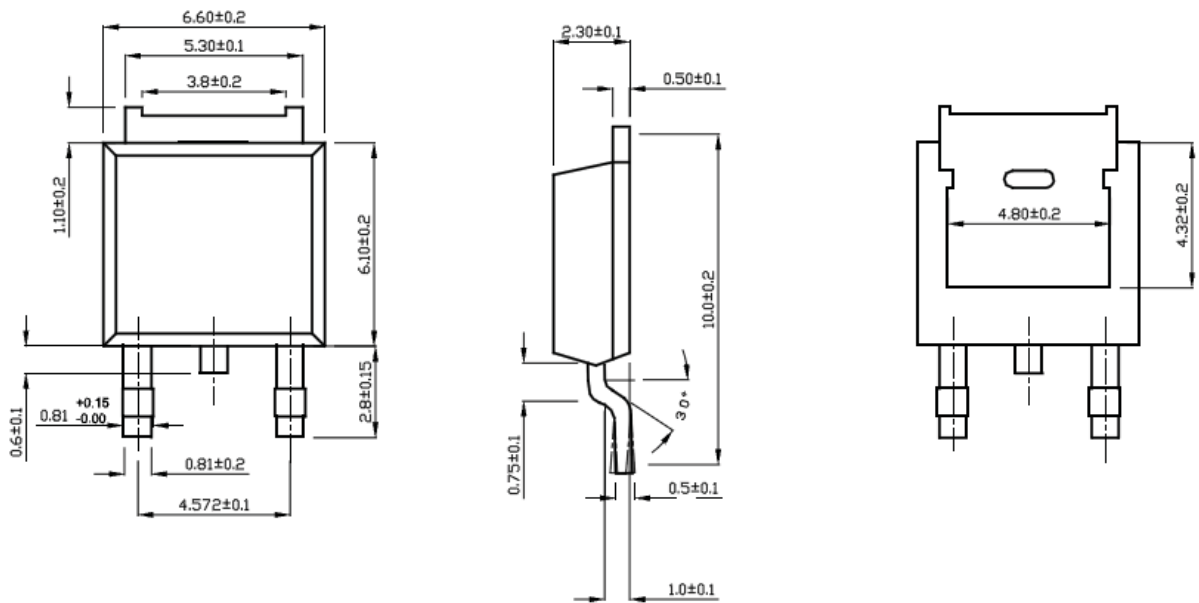


Figure 5. Power Derating

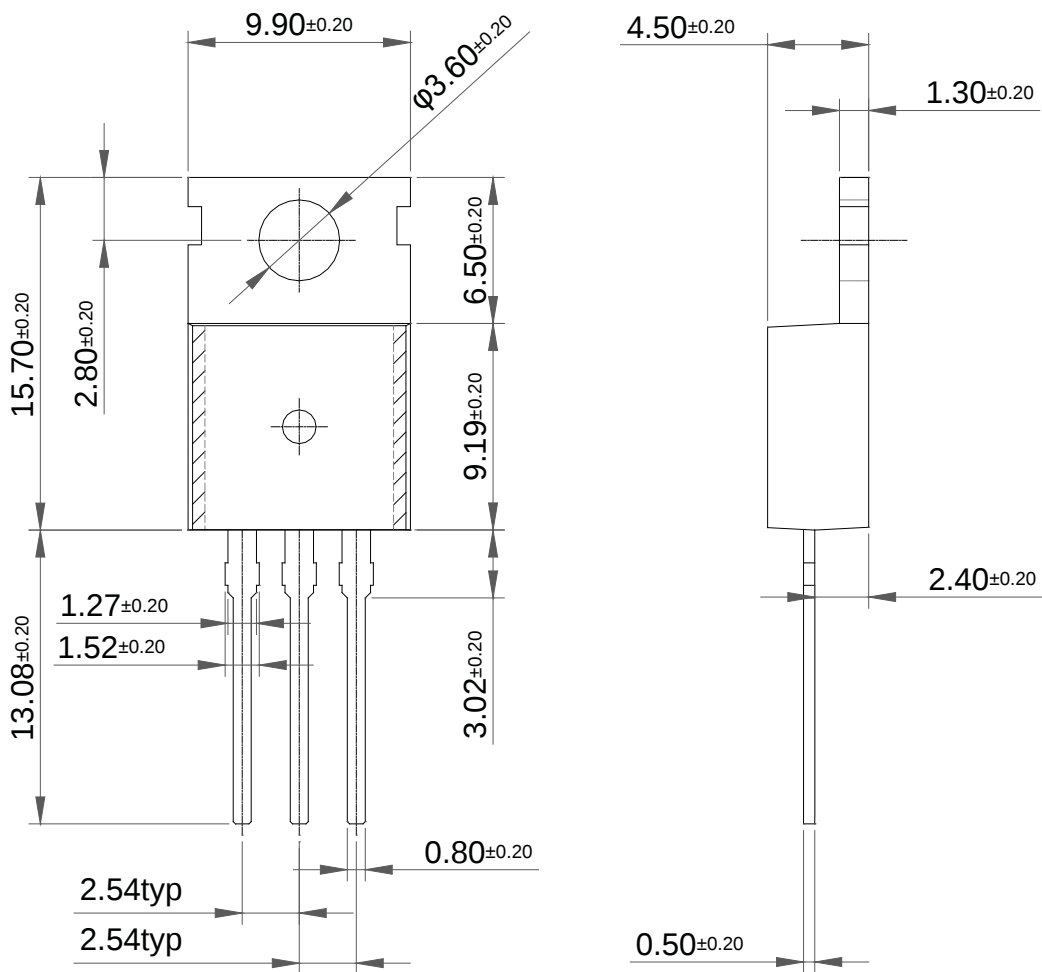
Package Dimension

TO-252



Package Dimension

TO-220



Dimensions in Millimeters