

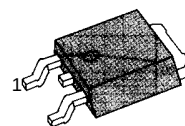
HIGH VOLTAGE AND HIGH RELIABILITY**D-PACK FOR SURFACE MOUNT****APPLICATIONS**

- Load Formed for Surface Mount Application(No Suffix)
- Straight Lead (I.PACK, "-I" Suffix)
- Electrically Similar to Popular TIP47 and TIP47C

ABSOLUTE MAXIMUM RATINGS

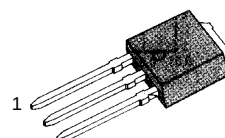
Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage : KSH47	V_{CBO}	350	V
: KSH50		500	V
Collector Emitter Voltage : KSH47	V_{CEO}	250	V
: KSH50		400	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	1	A
Collector Current (Pulse)	I_C	2	A
Base Current	I_B	0.6	A
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	15	W
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	1.56	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

D-PAK



1. Base 2. Collector 3. Emitter

I-PAK



1. Base 2. Collector 3. Emitter

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
* Collector Emitter Sustaining Voltage : KSH47	$V_{CEO} \text{ (sus)}$	$I_C = 30\text{mA}, I_B = 0$	250		V
: KSH50			400		V
Collector Cutoff Current : KSH47	I_{CEO}	$V_{CE} = 150\text{V}, I_B = 0$		0.2	mA
: KSH50		$V_{CE} = 300\text{V}, I_B = 0$		0.2	mA
Collector Cutoff Current : KSH47	I_{CES}	$V_{CE} = 350, V_{EB} = 0$		0.1	mA
: KSH50		$V_{CE} = 500, V_{EB} = 0$		0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = 5\text{V}, I_C = 0$		1	mA
* DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 0.3\text{A}$	30	150	
		$V_{CE} = 10\text{V}, I_C = 1\text{A}$	10		
* Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 0.2\text{A}$		1	V
* Base Emitter Saturation Voltage	$V_{BE(on)}$	$V_{CE} = 10\text{A}, I_C = 1\text{A}$		1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 0.2\text{A}$	10		MHz
		$f = 2\text{MHz}$			

* Pulse Test : $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

KSH47/50

NPN EPITAXIAL SILICON TRANSISTOR

