

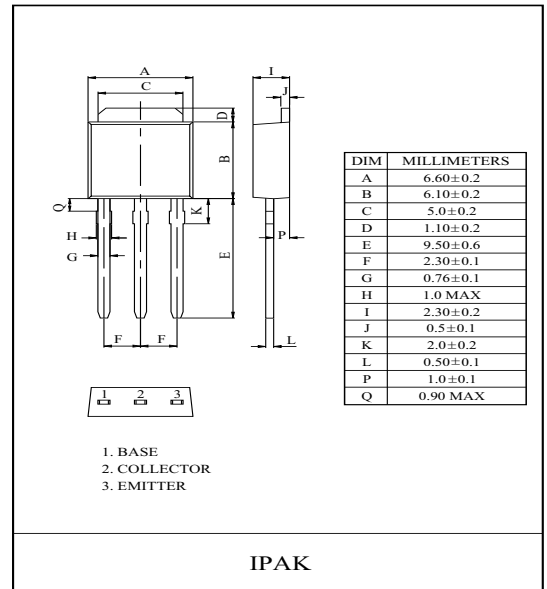
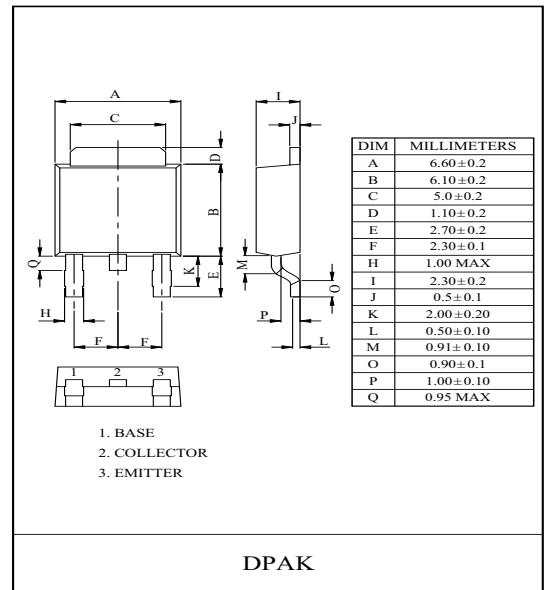
GENERAL PURPOSE APPLICATION.  
DPAK FOR SVRFACE MOUNT APPLICATIONS.

### FEATURES

- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -1.0V(\text{Max.})$  at  $I_C = -2A$ ,  $I_B = -0.2A$ .
- Straight Lead (IPAK, "L" Suffix)
- Complementary to KTC2020D/L.

### MAXIMUM RATING ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-7	V
Collector Current	$I_C$	-3	A
Base Current	$I_B$	-0.5	A
Collector Power Dissipation	$T_a = 25^\circ\text{C}$ $T_c = 25^\circ\text{C}$	$P_C$	W
		1.0 20	
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -60V$ , $I_E = 0$	-	-	-100	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -7V$ , $I_C = 0$	-	-	-100	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -50\text{mA}$ , $I_B = 0$	-60	-	-	V
DC Current Gain	$h_{FE(1)}(\text{Note})$	$V_{CE} = -5V$ , $I_C = -0.5A$	100	-	300	
	$h_{FE(2)}$	$V_{CE} = -5V$ , $I_C = -3A$	20	-	-	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2A$ , $I_B = -0.2A$	-	-0.25	-1.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -5V$ , $I_C = -0.5A$	-	-0.7	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -5V$ , $I_C = -0.5A$	-	30	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V$ , $I_E = 0$ , $f = 1\text{MHz}$	-	45	-	pF
Switching Time	Turn-on Time	$t_{on}$	-	0.4	-	$\mu\text{s}$
	Storage Time	$t_{stg}$	-	1.7	-	
	Fall Time	$t_f$	-	0.5	-	

Note :  $h_{FE(1)}$  Classification Y:100~200, GR:150~300.

# KTA1040D/L

