

SINGLE DRIVER

KID65501P/F COMMON EMITTER.
KID65502P/F COMMON EMITTER.
KID65503P/F COMMON EMITTER.
KID65504P/F COMMON EMITTER.
KID65505P/F COMMON COLLECTOR.
KID65506P/F COMMON COLLECTOR.
KID65507P/F ISOLATED.

FEATURES

- Output Current : 200mA Max.
 - High Voltage Outputs : 35V
 - Input Compatible with Various Types of Logic
- KID65501P/F
 KID65505P/F } Using external resistor : General Purpose
 KID65507P/F
 KID65502P/F $R_{IN}=7V$ Zener Diode+10.5k Ω : 14 25V P-MOS
 KID65503P/F }
 KID65506P/F $R_{IN}=2.7k\Omega$: TTL, 5V C-MOS
 KID65504P/F $R_{IN}=10.5k\Omega$: 6 15V P-MOS, C-MOS

DESCRIPTION :

The KID65501P/F Series are comprised of seven or five NPN Transistor Arrays. For proper operation, the substrate (SUB) must be connected to the most negative voltage.

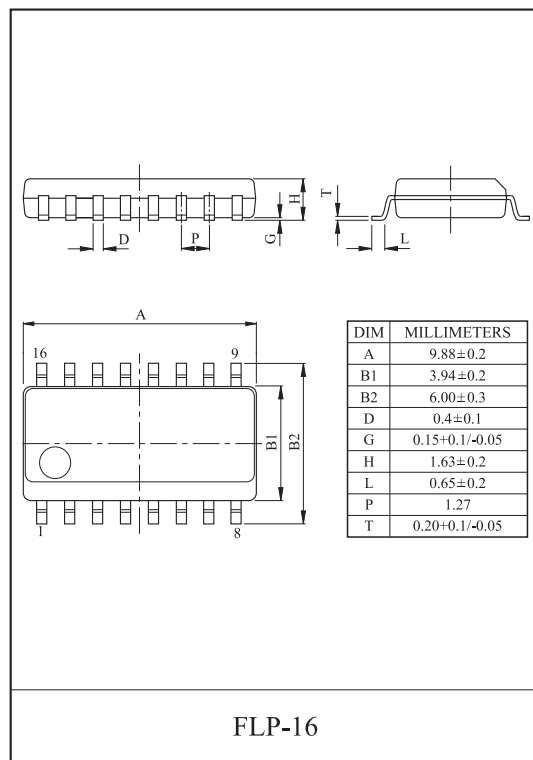
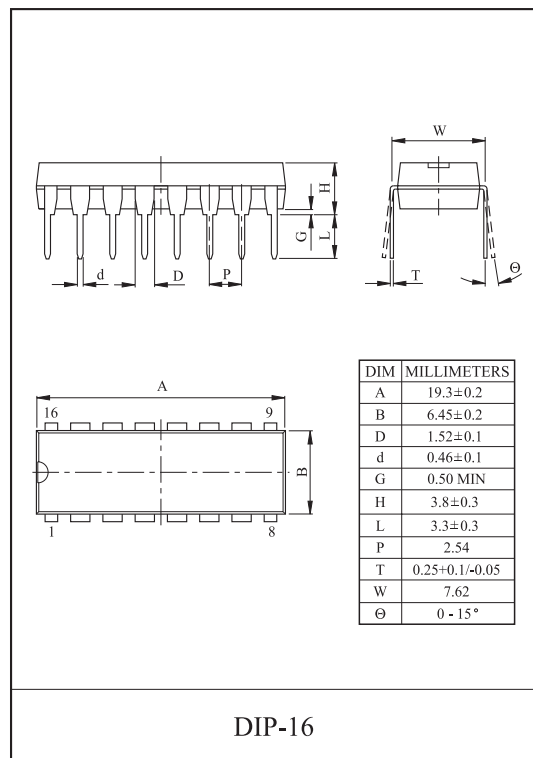
MAXIMUM RATINGS (Ta=25°C, unless otherwise noted)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		V _{CEO}	35	V
Collector-Base Voltage		V _{CBO}	50	V
Collector Current		I _C	200	mA
Input Voltage		V _{IN} *	-0.5 +45	V
		V _{IN} **	-0.5 +30	
Input Current		I _{IN} ***	25	mA
Isolation Voltage		V _{SUB}	35	V
GND Terminal Current		I _{GND}	500	mA
Power Dissipation	KID65501P KID65507P	P _D	1.0	W
	KID65501F KID65507F		0.54	
Operating Temperature		T _{opr}	-40 85	°C
Storage Temperature		T _{stg}	-55 150	°C

* KID65506P/F

** KID65502P/F, KID65503P/F, KID65504P/F

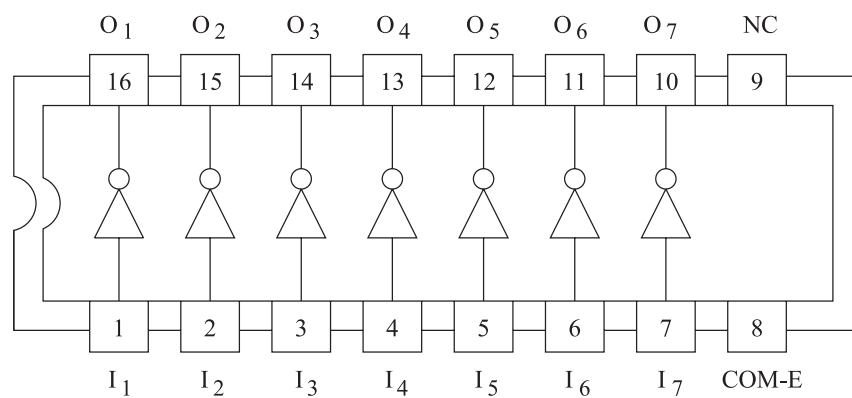
*** KID65501P/F, KID65505P/F, KID65507P/F



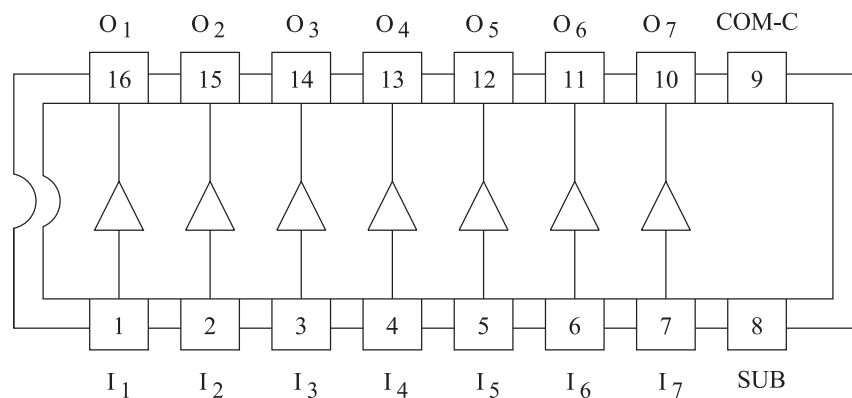
KID65501P/F~KID65507P/F

PIN CONNECTIONS (TOP VIEW)

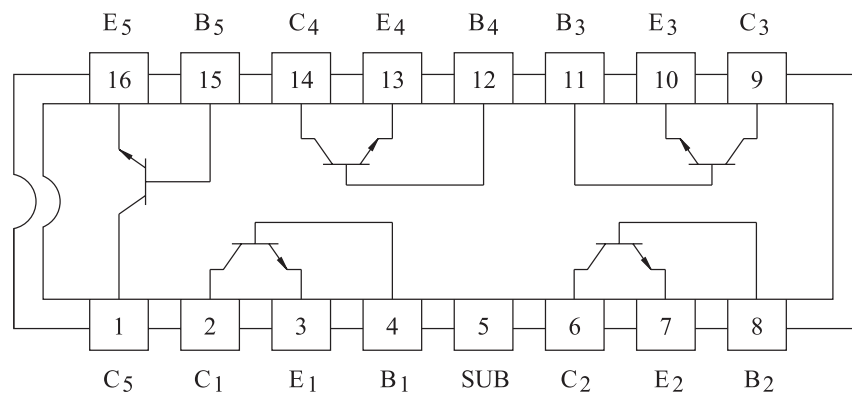
KID65501P/F, KID65502P/F, KID65503P/F, KID65504P/F



KID65505P/F, KID65506P/F



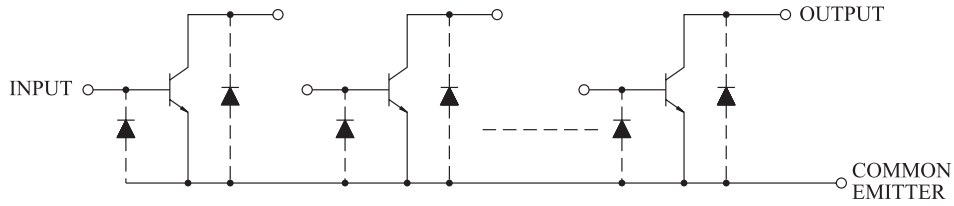
KID65507P/F



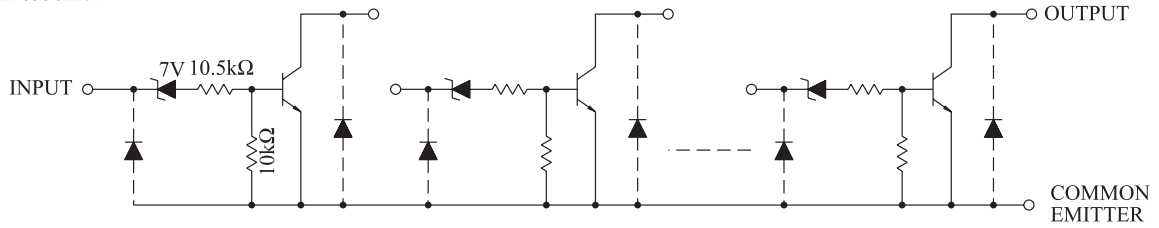
KID65501P/F~KID65507P/F

SCHEMATICS

KID65501P/F

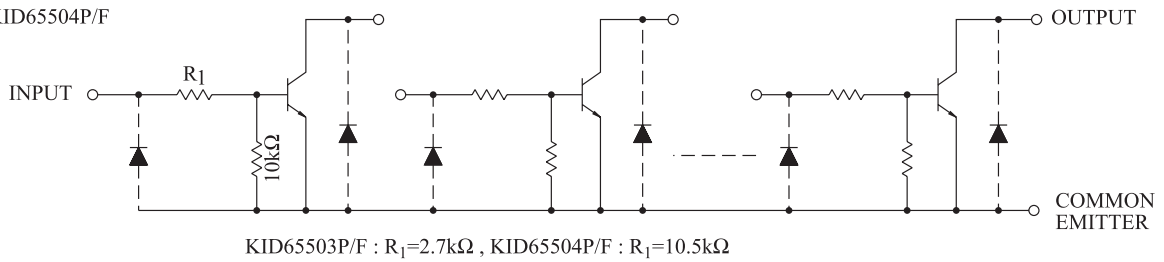


KID65502P/F

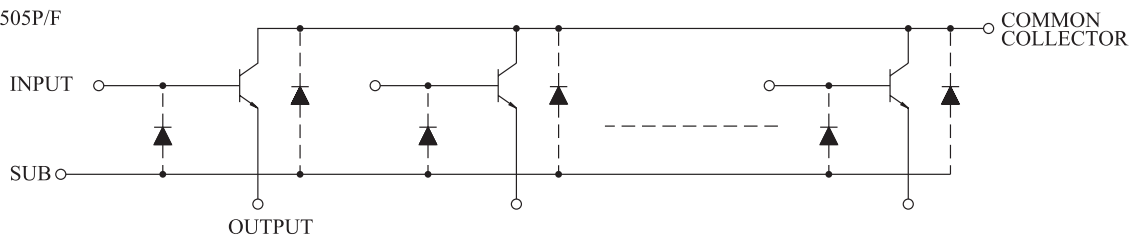


KID65503P/F

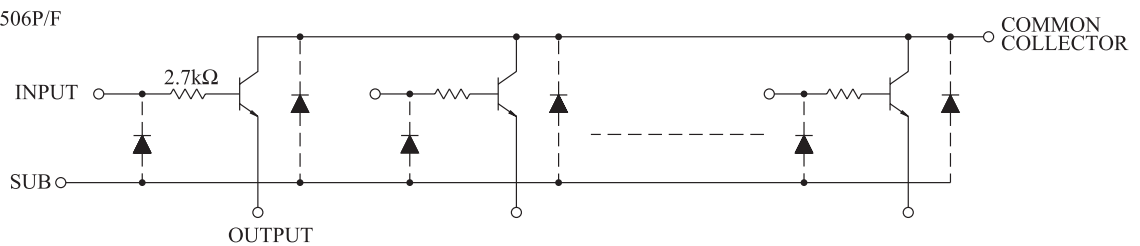
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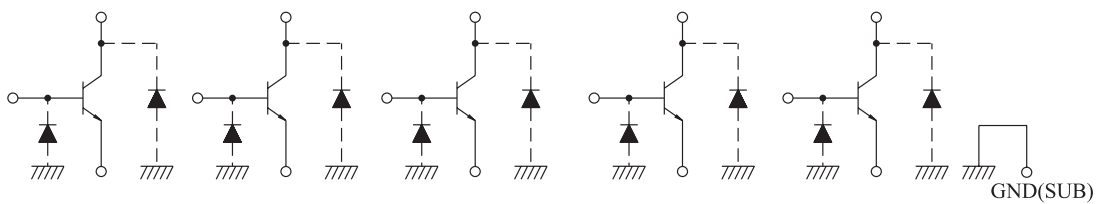
KID65505P/F



KID65506P/F



KID65507P/F



KID65501P/F~KID65507P/F

RECOMMENDED OPERATING CONDITIONS (Ta=-40 ~ 85°C)

CHARACTERISTIC		SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Voltage		V _{CEO}		0	-	35	V
Collector-Base Voltage		V _{CBO}		0	-	50	V
Collector Current		I _C		0	-	150	mA
Input Voltage	KID65506P/F	V _{IN}		0	-	35	V
	KID65502P/F			0	-	25	
	KID65503P/F						
	KID65504P/F						
Input Current	KID65501P/F KID65505P/F KID65507P/F	I _{IN}		0	-	10	mA
Power Dissipation	KID65501P KID65507P	P _D		-	-	0.36	W
	KID65501F KID65507F		On PCB *	-	-	0.325	

* : on glass epoxy PCB (30×30×1.6mm Cu50%)

ELECTRICAL CHARACTERISTICS (Ta=25°C)

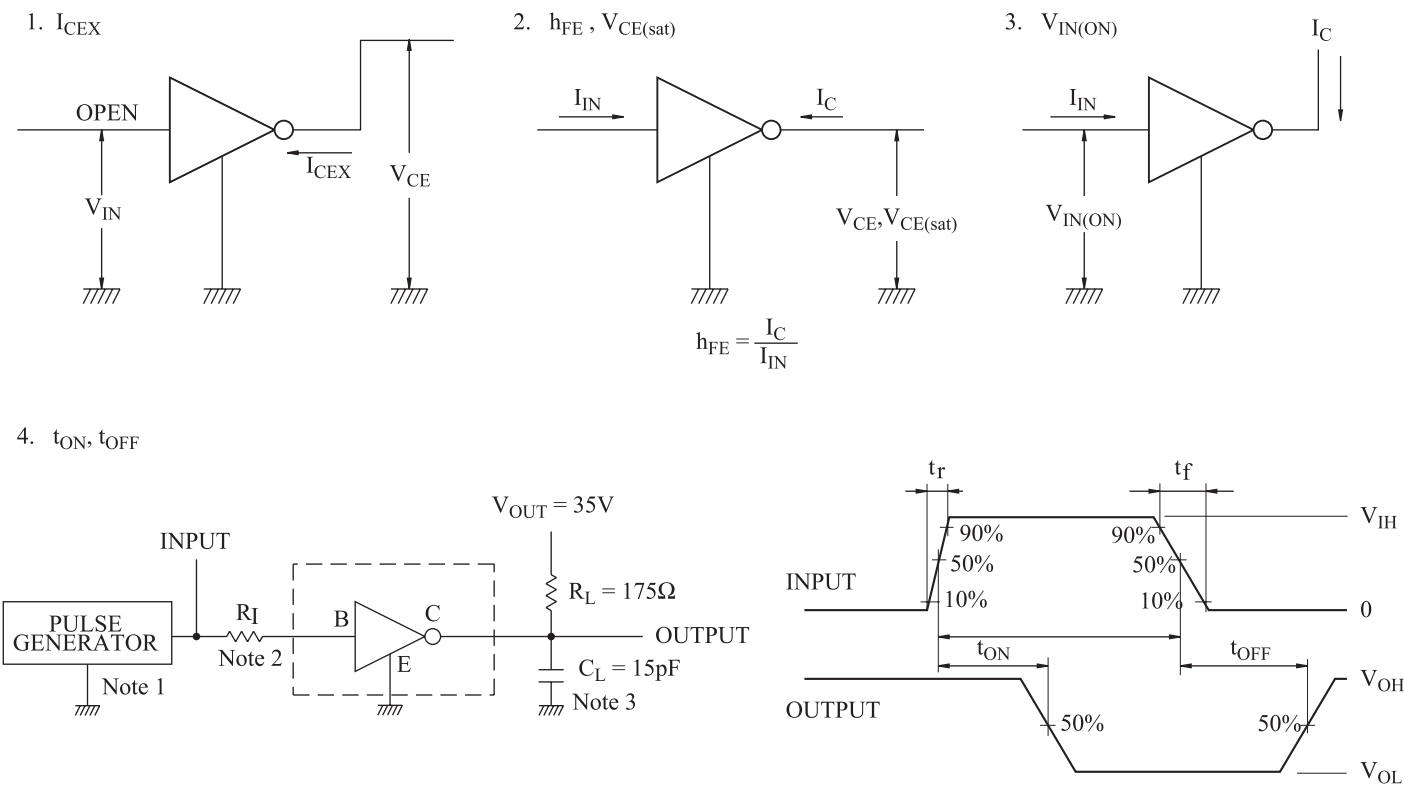
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Leak Current	I_{CEX}	1	$V_{CE}=25V, V_{IN}=0$		-	-	10	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	2	$I_{IN}=1mA, I_C=10mA$		-	-	0.2	V
			$I_{IN}=3mA, I_C=150mA^*$		-	-	0.8	
DC Forward Current Transfer Ratio	h_{FE}	2	$V_{CE}=10V, I_C=10mA$	**	70	-	-	
				***	50	-	-	
Input Voltage (Output ON)	$V_{IN(ON)}$	3	$I_{IN}=1mA, I_C=10mA$	KID65502P/F	13	17	23	V
				KID65503P/F	2.4	3.4	4.2	
				KID65504P/F	7.5	11.5	15	
Turn-ON Delay	t_{ON}	4	$V_{OUT}=35V, R_L=175\Omega, C_L=15pF$		-	50	-	ns
Turn-OFF Delay	t_{OFF}				-	200	-	

* EXCEPT KID65502P/F

** KID65501P/F, KID65505P/F, KID65506P/F, KID65507P/F

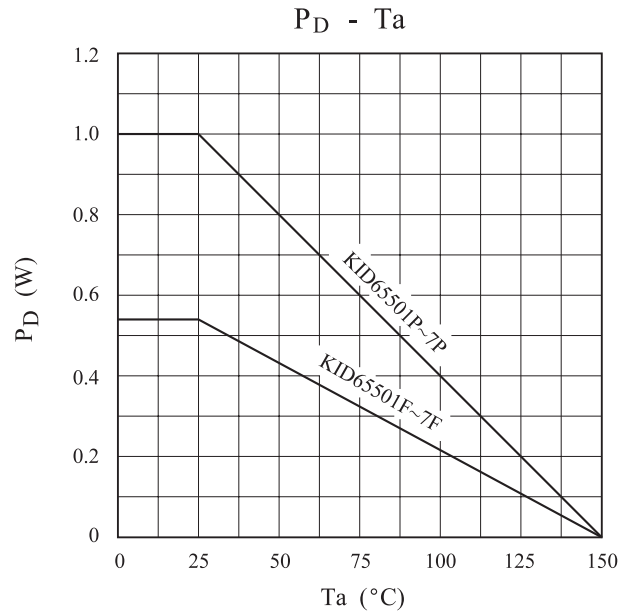
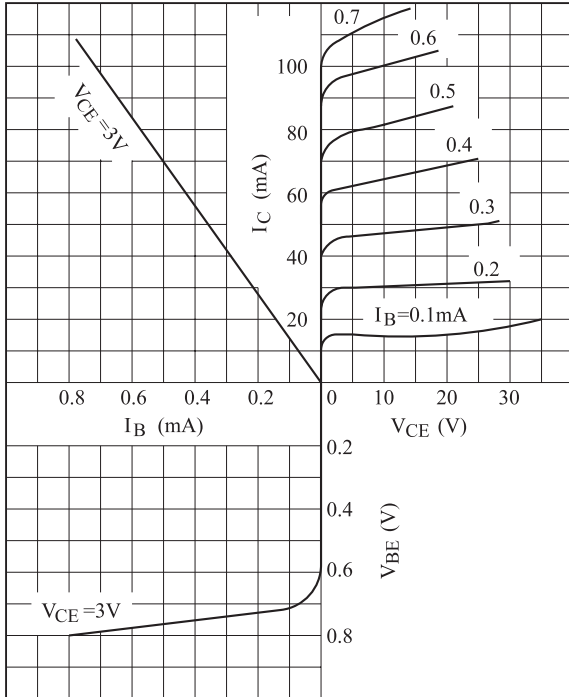
*** KID65502P/F, KID65503P/F, KID65504P/F

KID65501P/F~KID65507P/F



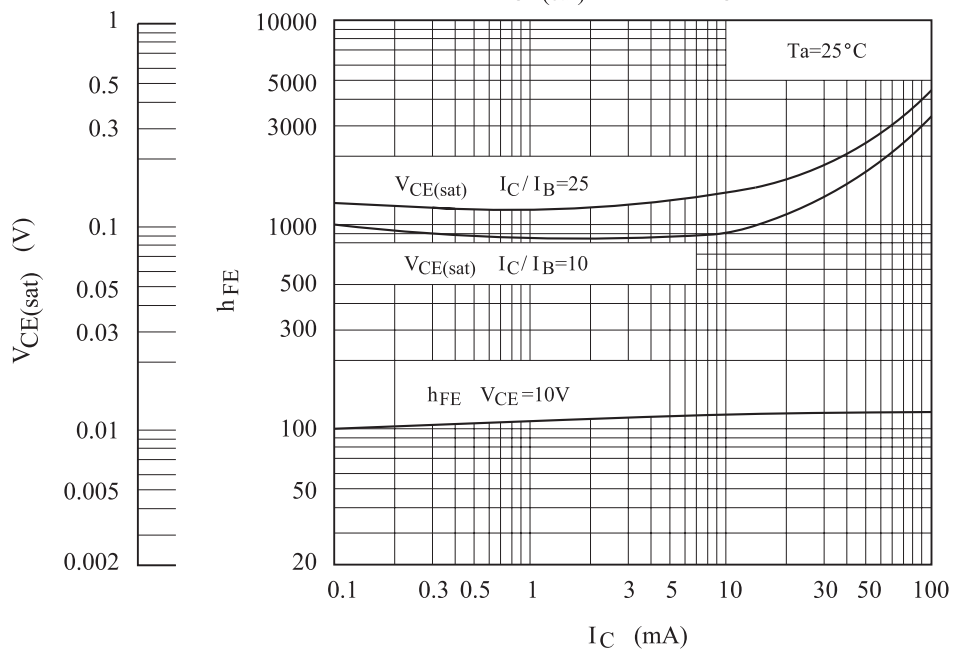
KID65501P/F~KID65507P/F

KID65501P/F, KID65505P/F, KID65507P/F STATIC CHARACTERISTICS



KID65501P/F, KID65505P/F, KID65507P/F

$V_{CE(sat)}, h_{FE} - I_C$



KID65501P/F~KID65507P/F

