

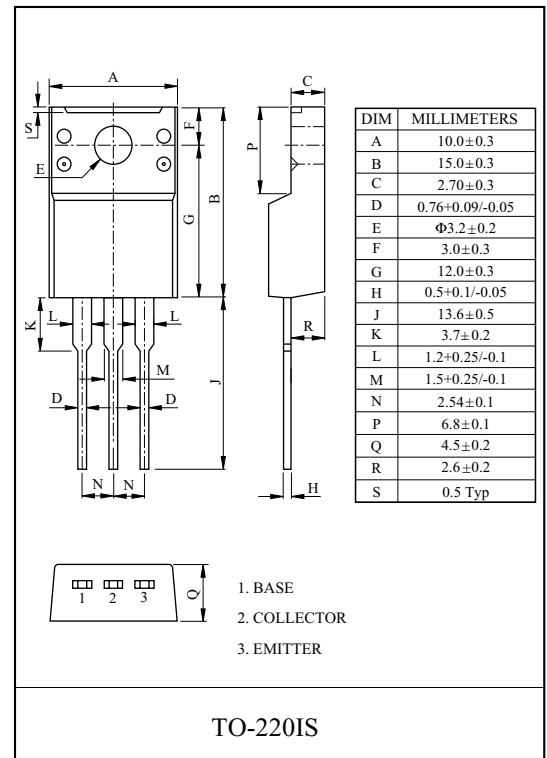
INDUSTRIAL USE.  
HIGH POWER SWITCHING APPLICATIONS.  
HAMMER DRIVER, PULSE MOTOR DRIVER  
APPLICATIONS.

### FEATURES

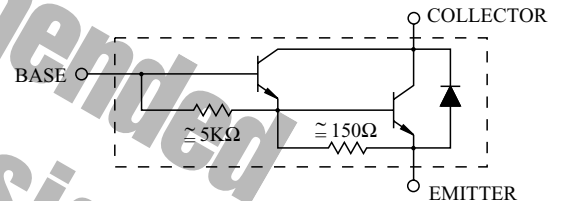
- High DC Current Gain :  $h_{FE}=2000(\text{Min.})$  at  $V_{CE}=3V, I_C=3A$ .
- Low Saturation Voltage :  $V_{CE(\text{sat})}=1.5V(\text{Max.})$  at  $I_C=3A$ .

### MAXIMUM RATING (Ta=25 )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	7	A
Base Current	$I_B$	0.2	A
Collector Power Dissipation (Tc=25 )	$P_C$	30	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 ~ 150	



### EQUIVALENT CIRCUIT

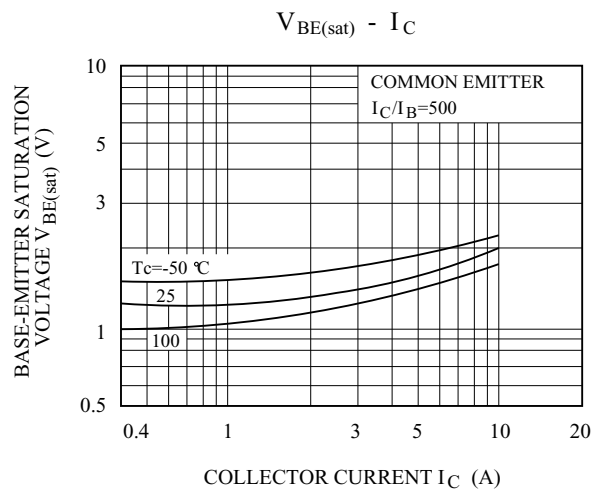
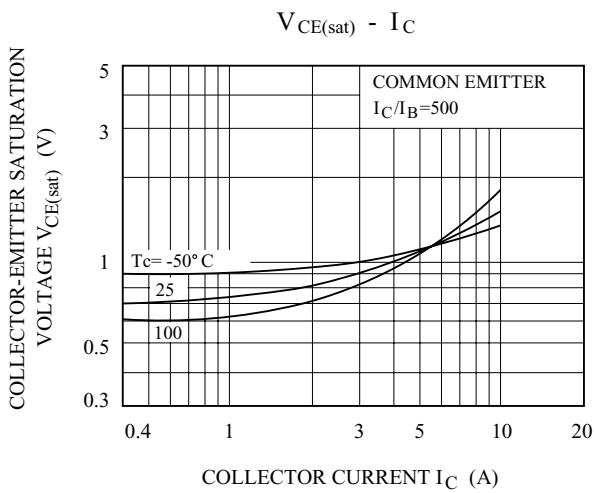
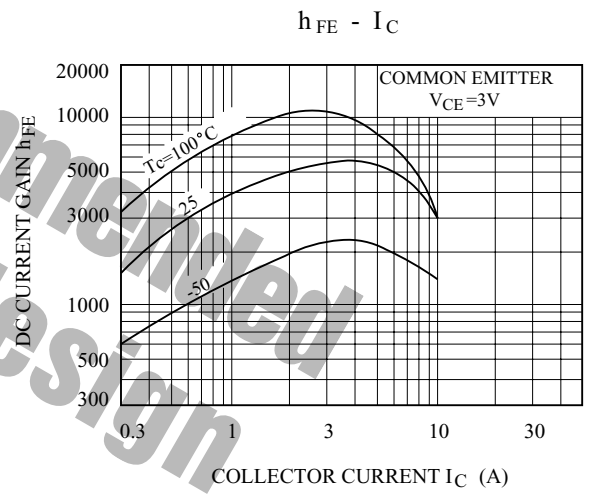
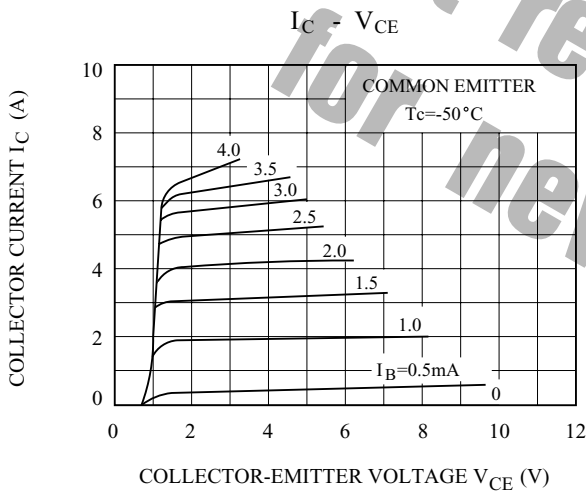
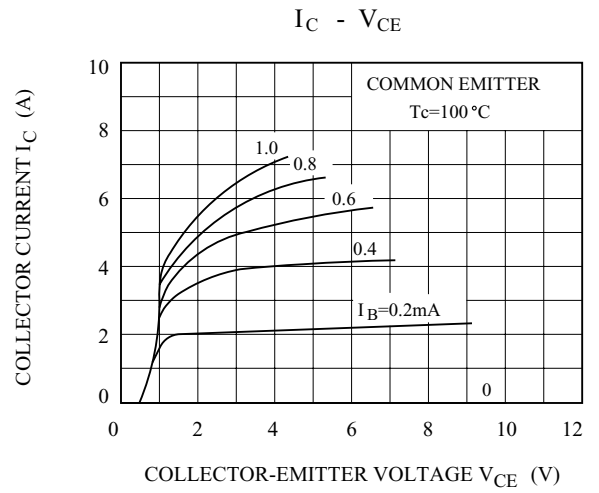
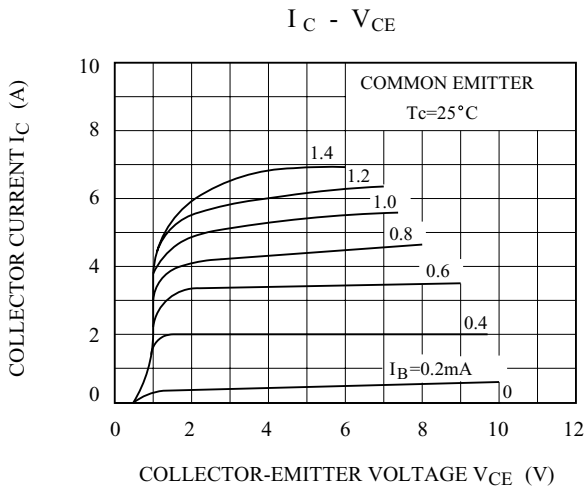


### ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$	-	-	100	μA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	3.0	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	100	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=3V, I_C=3A$	2000	-	15000	
	$h_{FE(2)}$	$V_{CE}=3V, I_C=7A$	1000	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})(1)}$	$I_C=3A, I_B=6mA$	-	0.9	1.5	V
	$V_{CE(\text{sat})(2)}$	$I_C=7A, I_B=14mA$	-	1.2	2.0	
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$	$I_C=3A, I_B=6mA$	-	1.5	2.5	V
Switching Time	Turn-on Time	$t_{on}$	-	0.8	-	μs
	Storage Time	$t_{stg}$	-	3.0	-	
	Fall Time	$t_f$	-	2.5	-	

$I_{B1} = -I_{B2} = 6mA$   
DUTY CYCLE ≤ 1%

# KTD1415V



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