

#### HIGH VOLTAGE APPLICATION

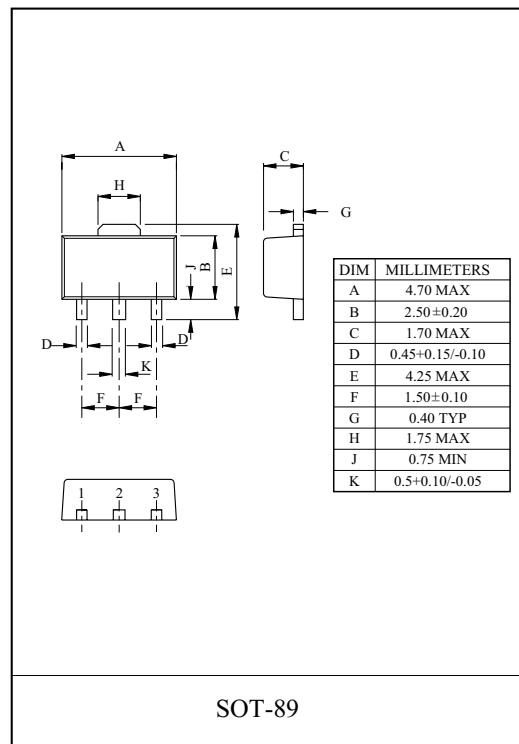
#### FEATURES

- High Voltage :  $V_{CEO}=160V$ .
- Large Continuous Collector Current Capability.
- Recommended for LED Drive Application.

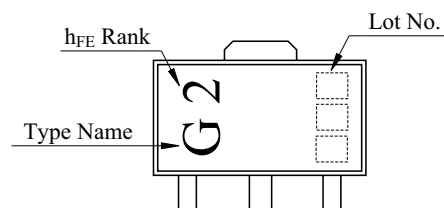
#### MAXIMUM RATING (Ta=25 )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	160	V
Collector-Emitter Voltage	$V_{CEO}$	160	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	1	A
Base Current	$I_B$	0.5	A
Collector Power Dissipation	$P_C$	0.5	W
	$P_C^*$	1	
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

\* : Mounted on ceramic substrate (250mm<sup>2</sup> × 0.8t)



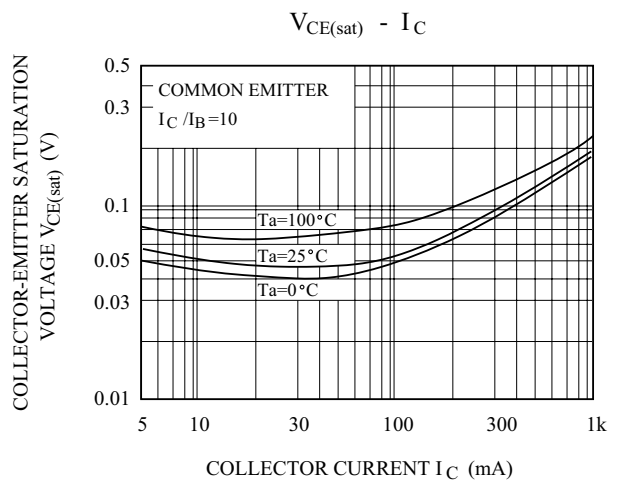
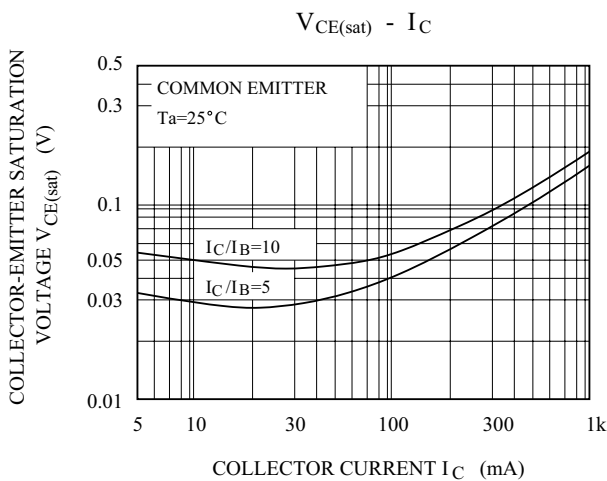
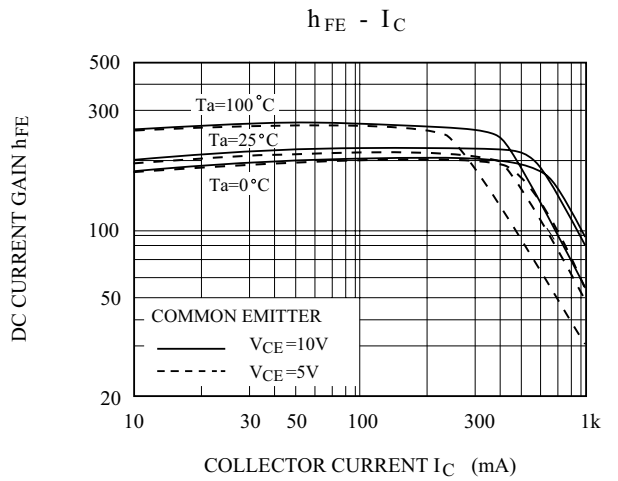
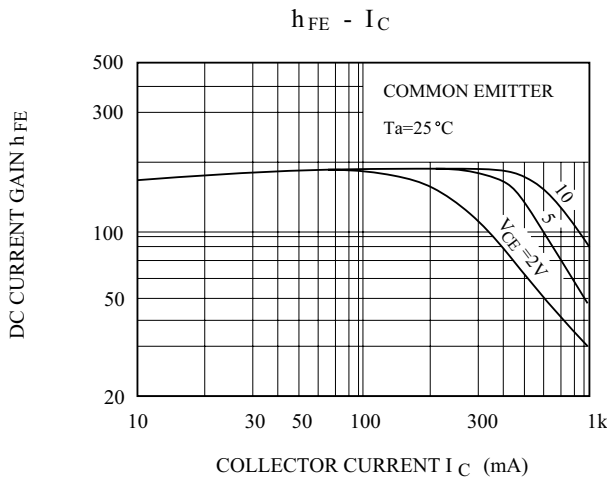
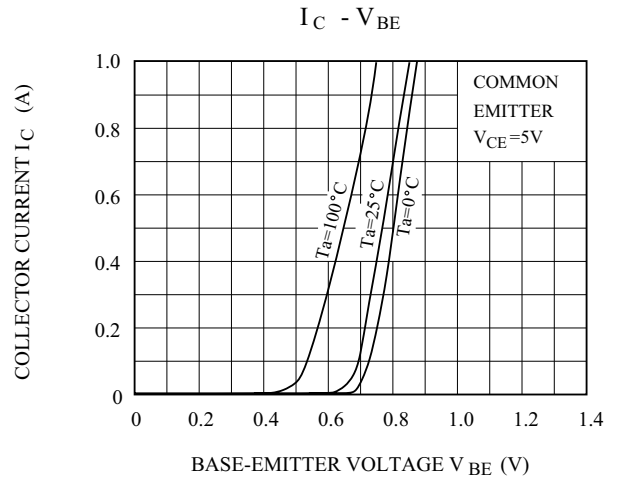
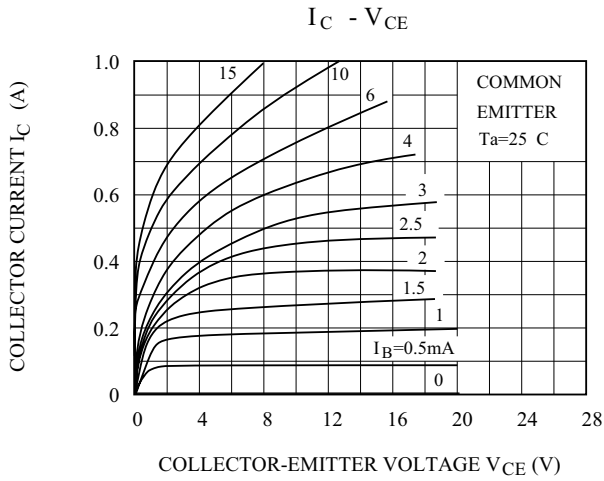
#### Marking



#### ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=160V, I_E=0$	-	-	1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=6V, I_C=0$	-	-	1.0	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	160	-	-	V
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=5V, I_C=200mA$	160	-	320	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=100mA, I_B=10mA$	-	0.05	0.1	V
	$V_{CE(sat)(2)}$	$I_C=500mA, I_B=50mA$	-	-	1.5	V
	$V_{CE(sat)(3)}$	$I_C=120mA, I_B=2mA$	-	0.13	-	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=5mA$	0.45	-	0.75	V
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=200mA$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	15	-	pF

# KTC4380



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