

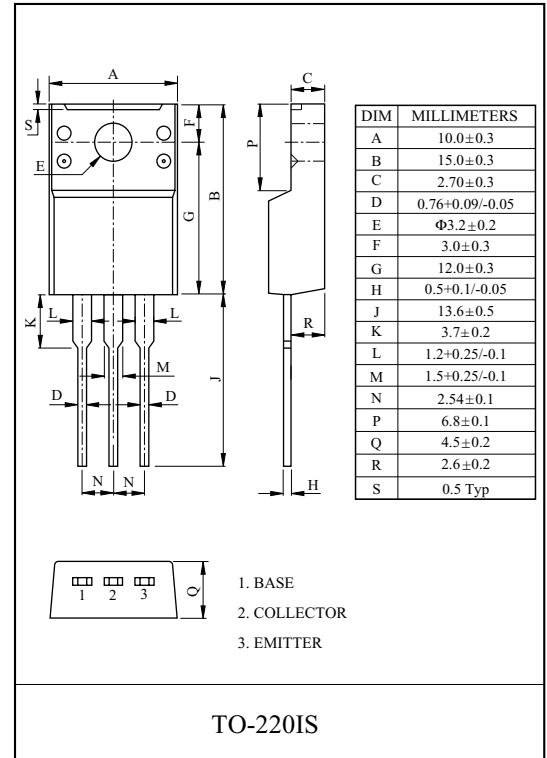
HIGH CURRENT SWITCHING APPLICATION.  
LAMP SOLENOID DRIVER APPLICATION.

### FEATURES

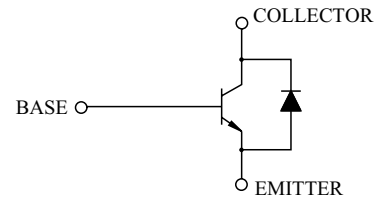
- High DC Current Gain  
:  $h_{FE}=500 \sim 1500(I_C=1A)$ .
- Low Collector Saturation Voltage  
:  $V_{CE(sat)}=0.35V(\text{Max.})(I_C=3A)$ .

### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	100	V
Collector-Emitter Voltage		$V_{CEO}$	80	V
Emitter-Base Voltage		$V_{EBO}$	7	V
Collector Current	DC	$I_C$	5	A
	Pulse	$I_{CP}$	8	
Base Current		$I_B$	1	A
Collector Power Dissipation	Ta=25 °C	$P_C$	2	W
	Tc=25 °C		30	
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C



### EQUIVALENT CIRCUIT



### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		$I_{CBO}$	$V_{CB}=80V, I_E=0$	-	-	10	μA
Emitter Cut-off Current		$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	10	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	80	-	-	V
DC Current Gain		$h_{FE}(1)$	$V_{CE}=1V, I_C=1A$	500	-	1500	
		$h_{FE}(2)$	$V_{CE}=1V, I_C=5A$	150	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=3A, I_B=0.03A$	-	-	0.35	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=3A, I_B=0.03A$	-	-	1.2	V
Collector-Emitter Forward Voltage		$V_{ECF}$	$I_E=3A, I_B=0$	-	-	2.5	V
Transition Frequency		$f_T$	$V_{CE}=5V, I_C=1A$	-	130	-	MHz
Collector Output Capacitance		$C_{ob}$	$V_{CE}=10V, I_E=0, f=1MHz$	-	110	-	pF
Switching Time	Turn-on Time	$t_{on}$		-	0.6	-	μs
	Storage Time	$T_{stg}$		-	3.0	-	
	Fall Time	$t_f$		-	0.8	-	

