

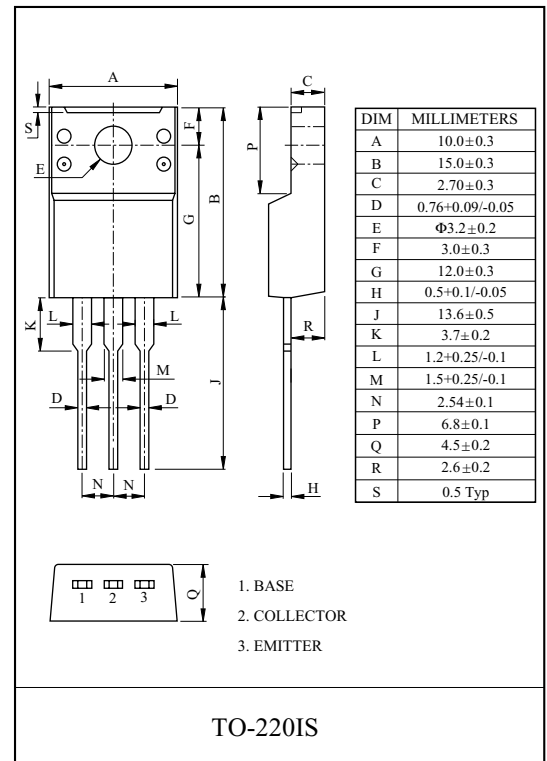
HIGH CURRENT SWITCHING APPLICATION.
LAMP SOLENOID DRIVER APPLICATION.

FEATURES

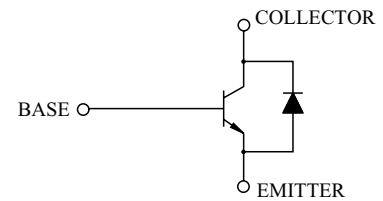
- High DC Current Gain
: $h_{FE}=500 \sim 1500(I_C=1A)$.
- Low Collector Saturation Voltage
: $V_{CE(sat)}=0.35V(\text{Max.})(I_C=3A)$.

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}	<p>$I_{B1}=I_{B2}=10mA$ DUTY CYCLE < 1%</p>	-	0.6	-	μs
	Storage Time	T_{stg}		-	3.0	-	
	Fall Time	t_f		-	0.8	-	

