

TO-220-3L Plastic-Encapsulate Transistors

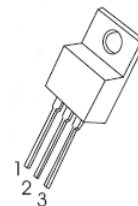
KTD2058 TRANSISTOR (NPN)

FEATURES

- Low Collector Saturation Voltage : $V_{CE(SAT)} = 1.0V(MAX)$

TO-220-3L

1. BASE
2. COLLECTOR
3. EMITTER

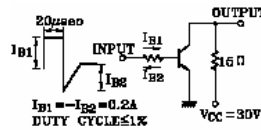


MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	2	W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-55-150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			100	μA
DC current gain	h_{FE}	$V_{CE}=5V, I_C=0.5A$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$			1	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=5V, I_C=0.5A$			1	V
Transition frequency	f_T	$V_{CE}=5V, I_C=0.5A$		3		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		35		pF
Switching time	Turn-on Time	t_{on}		0.65		μs
	Storage Time	t_{stg}		1.3		
	Fall Time	t_f		0.65		



CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	60-120 100-	200