

SEMICONDUCTOR TECHNICAL DATA

KTC2028

EPITAXIAL PLANAR NPN TRANSISTOR

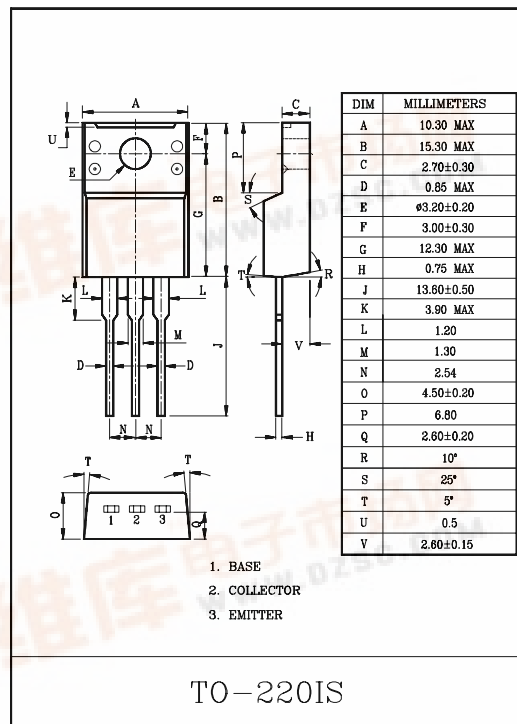
GENERAL PURPOSE APPLICATION.

FEATURE

- Low Collector-Emitter Saturation Voltage
: $V_{CE(sat)}=2.0V(\text{Max.})$
- Complementary to KTA1049.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	5	A
Base Current	I_B	0.5	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)	P_C	30	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

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}	$V_{EB}=5V, I_C=0$	-	-	1.0	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	100	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	70	-	240	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=4A$	20	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.4A$	-	-	2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5V, I_C=1A$	-	-	1.5	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=1A$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1\text{MHz}$	-	100	-	pF

Note : $h_{FE(1)}$ Classification O:70~140, Y:120~240

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