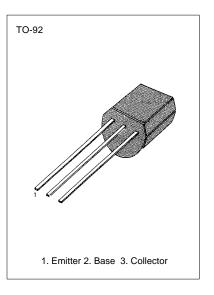
## **GENERAL PURPOSE TRANSISTOR**

- Collector-Emitter Voltage: V<sub>CEO</sub>= 40V
   Collector Dissipation: P<sub>C</sub> (max)=625mW

# ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	70	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	Ic	600	mA
Collector Dissipation	Pc	625	mW
Junction Temperature	T」	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ 150	°C

• Refer KSP2222 for graphs



## **ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)**

Characteristic	Symbol	Test Conditions	Min	Тур	Max	Unit
Collector-Base Breakdown Voltage Collector Emitter Breakdown Voltage Emitter-Base Breakdown Voltage Collector Cut-off Current Emitter Cut-off Current DC Current Gain	BVCBO BVCEO BVEBO ICBO IEBO hFE	I <sub>C</sub> =10μA, I <sub>E</sub> =0 I <sub>C</sub> =10mA, I <sub>B</sub> =0 I <sub>E</sub> =10μA, I <sub>C</sub> =0 V <sub>CB</sub> =60V, I <sub>E</sub> =0 V <sub>EB</sub> =3V, I <sub>C</sub> =0 I <sub>C</sub> =0.1mA, V <sub>CE</sub> =10V I <sub>C</sub> =1mA, V <sub>CE</sub> =10V I <sub>C</sub> =150mA, VCE=10V *I <sub>C</sub> =150mA, VCE=10V	$ \begin{array}{llllllllllllllllllllllllllllllllllll$	0.01 10 300	V V μA nA	
*Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	40		0.3	V
*Base Emitter Saturation Voltage	V <sub>BE</sub> (sat)	$I_C=150$ mA, $I_B=15$ mA $I_C=500$ mA, $I_B=50$ mA			1.2	V V
Current Gain Bandwidth Product	f⊤	I <sub>C</sub> =20mA, V <sub>CE</sub> =20V f=100MHz	300		2	MHz
Output Capacitance Turn On Time	C <sub>OB</sub> t <sub>ON</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz V <sub>CC</sub> =30V, I <sub>C</sub> =150mA I <sub>B1</sub> =15mA, V <sub>BE</sub> (off)=0.5V	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA	8 35	pF ns	
Turn Off Time	t <sub>OFF</sub>	$V_{CC}$ =30V, $I_{C}$ =150mA $I_{B1}$ = $I_{B2}$ =15mA			285	ns
Noise Figure	NF	$I_C$ =100μA, $V_{CE}$ =10V $R_S$ =IK $\Omega$ , f=1KHz			4	dB

<sup>\*</sup> Pulse Test: Pulse Width≤300µs, Duty Cycle≤2%



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