





**TO-92 NPN HIGH VOLTAGE TRANSISTOR** 

For Lead Free Parts, Device Part # will be Prefixed with "T"

## High Voltage NPN Transistor For General Purpose And Telephony Applications.

#### ABSOLUTE MAXIMUM RATINGS (Ta=25deg C unless otherwise specified)

DESCRIPTION	SYMBOL	·	VALUE			UNIT
Collector -Emitter Voltage	VCEO		160			V
Collector -Base Voltage	VCBO		180			V
Emitter -Base Voltage	VEBO		6.0			V
Collector Current Continuous	IC		600			mA
Power Dissipation @Ta=25 degC	PD		625			mW
Derate Above 25 deg C			5.0			mw/deg C
Power Dissipation @Tc=25 degC	PD		1.5		W	
Derate Above 25 deg C			12			mw/deg C
Operating And Storage Junction	Tj, Tstg		-55 to +150			deg C
Temperature Range						
THERMAL RESISTANCE						
Junction to Case	Rth(j-c)		125			deg C/W
Junction to Ambient	Rth(j-a) (1)	1	357			deg C/W
(1) Rth (j-a) is measured with the devi	ce soldered	into a typical printed	d circuit board			
<b>ELECTRICAL CHARACTERISTICS (Ta</b>	ו=25 deg C L	<b>Jnless Otherwise Sp</b>	ecified)			
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	ТҮР	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=1mA,IB=0	160	-	-	V
Collector -Base Voltage	VCBO	IC=100uA.IE=0	180	-	-	V
Emitter -Base Voltage	VEBO	IE=10uA, IC=-0	6.0	-	-	V
Collector-Cut off Current	ICBO	VCB=160V, IE=0	-	-	50	nA
		Ta=100 deg C				
		VCB=160V. IE=0	-	-	50	uA
Emitter-Cut off Current	IEBO	VEB=4V, IC=0	-	-	50	nA
DC Current Gain	hFE*	IC=1mA,VCE=5V	80	-	-	
		IC=10mA,VCE=5V	80	-	250	
		IC=50mA,VCE=5V	30	-	-	
Collector Emitter Saturation Voltage	VCE(Sat)*	IC=10mA,IB=1mA	-	-	0.15	V
Ū	. ,	IC=50mA,IB=5mA	-	-	0.2	V
Base Emitter Saturation Voltage	VBE(Sat) *	IC=10mA,IB=1mA	-	-	1.0	V
-		IC=50mA,IB=5mA	-	-	1.0	V

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Dynamic Characteristics Small Si nal Current Gain	hfe	IC=1mA, VCE=10V f=1KHz	50	-	200	
Transition Frequency	ft	VCE=10V,IC=10mA, f=100MHz	100	-	300	MHz
Output Capacitance	Cob	VCB=10V, IE=0 f=1MHz	-	-	6.0	pF
Input Capacitance	Cib	VEB=0.5V, IC=0 f=1MHz		-	20	pF
Noise Figure	NF	VCE=5V, IC=250uA R=1kohm, f=10Hz to 15.7kHz	-	-	8.0	dB
*Pulse Test: Pulse Width=300us, Duty Cycle=2%						

### **Packaging Information**

T & A: Tape and Ammo Pack; T & R: Tape and Reel; Bulk: Loose in Poly bags ; Tube: Tube and Ammo Pack; k: 1.000

Package/Case		Std. Packing	Inner Carton		Outer Carton			
	Packaging Type	Otv	Otv	Size L x W x H	<b>Gross Weight</b>	Otv	Size L x W x H	<b>Gross Weight</b>
туре	Giy	QUY	(cm)	(Kg)	QUY	(cm)	(Kg)	
TO-02	Bulk	1,000	5K	19x19x8	1.10	80K	43x40x35	20.0
10-92	T&A	2,000	2K	32x4.5x20	0.70	40K	43x40x35	15.20



DIM	Min	Max	
A	4.32	5.33	
В	4.45	5.20	
С	3.18	4.19	
D	0.40	0.55	
E	0.30	0.55	
F	5°		

All Dimensions are in mm





DIM	Min	Max
G	1.14	1.40
Н	1.20	1.40
K	12.7	
L	1.982	2.082
Μ	1.03	1.20

Collector

Pin	1	
Pin	2	

Pin 3 Emitter



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