

Silicon

## Complementary Unijunction Transistor

**D5K1**

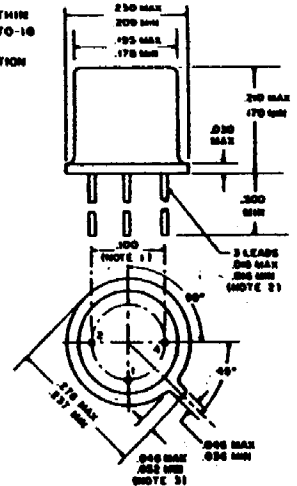
absolute maximum ratings: (25° C free air)

	D5K1	
<b>Voltage</b>		V
Interbase Voltage	30	
<b>Current (Note 2)</b>		mA
Average Emitter (Forward)	150	
Peak Emitter (Forward)	2	A
Peak Reverse Emitter	15	mA
<b>Power</b>		mW
Average Total	300	
<b>Temperature</b>		°C
Operating	-55 to +150	
Storage	-55 to +200	

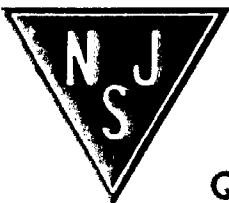
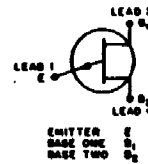
electrical characteristics: (25° C free air)

		Min.	Typ.	Max.	
<b>Intrinsic Standoff Ratio</b>	$\eta$	0.58	0.60	0.62	
<b>Peak Point Voltage</b>	$V_P$	3.2	3.45	3.7	Volts
( $V_{BB} = 5V$ )					
( $V_{BB} = 10V$ )	$V_P$	6.1	6.45	6.8	Volts
<b>Interbase Resistance</b>	$R_{BB0}$	5.5	6.8	8.2	kohms
( $I_{BB} = 0.1mA$ )					
<b>Emitter Breakdown Voltage</b>	$V_{EB10}$	8.0	9.5		Volts
( $I_{EB1} = 10\mu A$ )					
<b>Peak Point Current</b>	$I_P$			5	$\mu A$
( $V_{BB} = 10V$ )					
<b>Valley Point Current</b>	$I_V$	1	2		mA
( $V_{BB} = 10V$ )					
<b>Emitter Reverse Current</b>	$I_{EB10}$		0.1	10	nA
( $V_{EB1} = 5V$ )					
<b>Emitter Saturation Voltage</b>	$V_{E(sat)}$		1.1	1.5	Volts
( $I_E = 50mA, V_{BB} = 10V$ )					
<b>Modulated Interbase Current</b>	$I_{B2(mod)}$		4	10	mA
( $I_E = 50mA, V_{BB} = 10V$ )					
<b>Peak Pulse Voltage</b>	$V_{OUT}$	3.5	4.5		Volts
(Note 4)					
<b>Diode Voltage Drop</b>	$V_D$	.30	.45	.60	Volts
(Note 3)					
<b>Minimum Charge to Trigger</b>	$Q_t$		50		pC
( $V_{BB} = 10V$ )					
<b>Turn-on Time (See Figure 7)</b>	$t_{on}$			1	$\mu sec.$
<b>Recovery Time (See Figure 7)</b>	$t_{rec}$			10	$\mu sec.$
<b>Relaxation Oscillator Frequency Shift from 25°C Value (See Figure 1,</b>					
$C = 0.1\mu F, R_{B2} = 950\Omega, V_R = 12.5V$					
-15°C to +65°C			0.2	0.6	%
-55°C to +150°C			0.4	1.0	%

DIMENSIONS WITHIN  
JEDEC OUTLINE YO-18  
EXCEPT FOR  
LEAD CONFIGURATION



APPROX WEIGHT 016 GZ  
DIMENSIONS IN INCHES



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