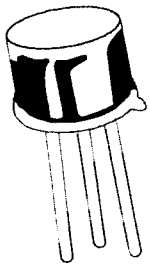
SOLID STATE INC.
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BLOOMFIELD, NEW JERSEY 07003 www.solidstateinc.com

NPN HIGH VOLTAGE SILICON TRANSISTORS

2N3439
2N3440
TO-39



High Voltage Silicon Planar Transistors used in High Voltage & High Power Amplifier Applications.

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

DESCRIPTION	SYMBOL	2N3439	2N3440	UNITS
Collector -Emitter Voltage	VCEO	350	250	V
Collector -Base Voltage	VCBO	450	300	V
Emitter -Base Voltage	VEBO	7.0		V
Collector Current Continuous	IC	1.0		A
Base Current	IB	0.5		A
Power Dissipation@ Ta=25 degC	PD	1.0		W
Derate Above 25 deg C		5.7		mW/deg C
Power Dissipation@ Tc=25 degC	PD	5.0		W
Derate Above 25 deg C		28.6		mW/deg C
Operating And Storage Junction Temperature Range	Tj, Tstg	-65 to +200		deg C
THERMAL RESISTANCE				
Junction to Ambient	Rth(j-a)	175		deg C/W
Junction to Case	Rth(j-c)	35		deg C/W

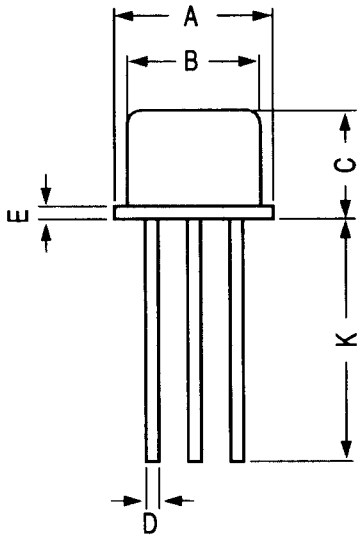
ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	2N3439	2N3440	UNITS
Collector -Emitter Voltage	VCEO(sus)*	IC=50mA,IB=0	>350	>250	V
Collector-Cut off Current	ICBO	VCB=360V, IE=0	<20	-	uA
		VCB=250V, IE=0	-	<20	uA
	ICEO	VCE=300V, IB=0	<20	-	uA
		VCE=200V, IB=0	-	<50	uA
	ICEX	VCE=450V,VBE=1.5V	<500	-	uA
		VCE=300V,VBE=1.5V	-	<500	uA
Emitter-Cut off Current	IEBO	VEB=6V, IC=0	<20	<20	uA
DC Current Gain	hFE*	IC=2mA,VCE=10V	>30	-	
		IC=20mA,VCE=10V	40-160	40-160	
Collector Emitter Saturation Voltage	VCE(Sat)*	IC=50mA,IB=4mA	<0.5	<0.5	V
Base Emitter Saturation Voltage	VBE(Sat) *	IC=50mA,IB=4mA	<1.3	<1.3	V

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)			2N3439/3440		
DESCRIPTION	**SYMBOL**	**TEST CONDITION**	**2N3439**	**2N3440**	**UNITS**
SMALL SIGNAL CHARACTERISTICS					
Small Signal Current Gain.	hfe	IC=5mA, VCE=10V, f=1kHz	>25	>25	
Output Capacitance	Cob	VCB=10V, IE=0, f=1MHz	<10	<10	pF
Input Capacitance	Cib	VEB=5V, IC=0, f=1MHz	<75	<75	pF
Current Gain-Bandwidth Product	ft	IC=10mA, VCE=10V f=5MHz	>15	>15	MHz
Real Part of Input Impedence	Re(hie)	VCE-10V, IC=5mA f=1MHz	<300	<300	ohms

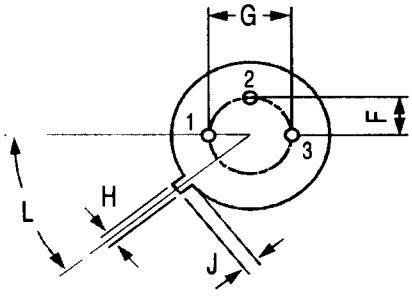
***Pulse Test:- Pulse Width =300us, Duty Cycle=2%**

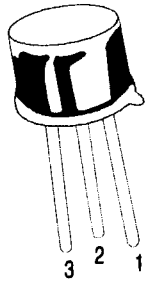
TO-39 Metal Can Package



All dimensions are in mm

DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	—	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	—
L	42 DEG	48 DEG





PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR