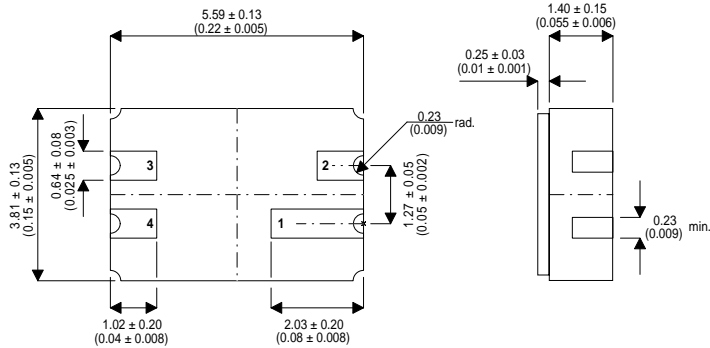


**HIGH VOLTAGE, MEDIUM POWER, NPN
TRANSISTOR IN A
HERMETICALLY SEALED
CERAMIC SURFACE MOUNT PACKAGE
FOR HIGH RELIABILITY APPLICATIONS**

MECHANICAL DATA
Dimensions in mm (inches)



LCC3 PACKAGE
Underside View

- PAD 1 – Collector
- PAD 2 – N/C
- PAD 3 – Emitter
- PAD 4 – Base

FEATURES

- SILICON PLANAR EPITAXIAL NPN TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS
- HIGH VOLTAGE

APPLICATIONS:

Hermetically sealed surface mount version of the popular 2N3439 for high reliability / space applications requiring small size and low weight devices.

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	450V
V_{CEO}	Collector – Emitter Voltage ($I_B = 0$)	350V
V_{EBO}	Emitter – Base Voltage ($I_B = 0$)	7V
I_C	Collector Current	500mA
P_D	Total Device Dissipation	350mW
P_D	Derate above 50°C	2.0mW / °C
R_{ja}	Thermal Resistance Junction to Ambient	350°C/W
T_{stg}	Storage Temperature	-55 to 200°C

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{CEO(sus)}$ * Collector – Emitter Sustaining Voltage	$I_C = 50mA$	350			V
I_{CEX} * Collector Cut-off Current ($I_C = 0$)	$I_B = 0$ $V_{CE} = 450V$			500	μA
I_{CBO} * Collector – Base Cut-off Current	$I_E = 0$ $V_{CB} = 300V$			20	μA
	$T_C = 125^{\circ}C$			10	μA
I_{EBO} * Emitter Cut-off Current ($I_C = 0$)	$I_C = 0$ $V_{EB} = 6V$ (off)			20	μA
$V_{CE(sat)}$ * Collector – Emitter Saturation Voltage	$I_C = 50mA$ $I_B = 4mA$			0.5	V
$V_{BE(sat)}$ * Base – Emitter Saturation Voltage	$I_C = 50mA$ $I_B = 4mA$			1.3	
h_{FE} * DC Current Gain	$I_C = 20mA$ $I_C = 10mA$	40		160	—

* Pulse test $t_p = 300\mu s$, $\delta \leq 2\%$

DYNAMIC CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
f_T Transition Frequency	$I_C = 10mA$ $V_{CE} = 10V$ $f = 5MHz$	15			MHz
C_{ob} Output Capacitance	$V_{CB} = 10V$ $I_E = 0$ $f = 1.0MHz$			10	pF
h_{fe} Small Signal Current Gain	$I_C = 5mA$ $V_{CE} = 10V$ $f = 1kHz$	25			