TECHNICAL DATA
DATA SHEET 726, REV –
Formerly part number SHD4464

SMALL SIGNAL TRANSISTOR

DESCRIPTION: AN NPN SMALL SIGNAL TRANSISTOR IN A SURFACE CERAMIC LCC-4 PACKAGE.

MAXIMUM RATINGS (ALL RATINGS ARE AT T_A = 25°C UNLESS OTHERWISE SPECIFIED).

RATING	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector-Emitter Voltage (V_{CEO})	-	-	-	150	Vdc
Collector-Base Voltage (V_{CBO})	-	-	-	150	Vdc
Emitter-Base Voltage (V_{EBO})	-	-	-	6.0	Vdc
Collector Current-Continuous (I_C)	-	-	-	300	mAdc
Total Power Dissipation (P_D @ T_C = 25°C) Derate above 25°C	-	-	-	0.45	W mW/°C
Thermal Resist. Junction to Case $R\theta_{JC}$	-	-	-	285	°C/W
Operating Junction and Storage Temp. (T_J & T_{stg})	-	-65	-	+150	°C

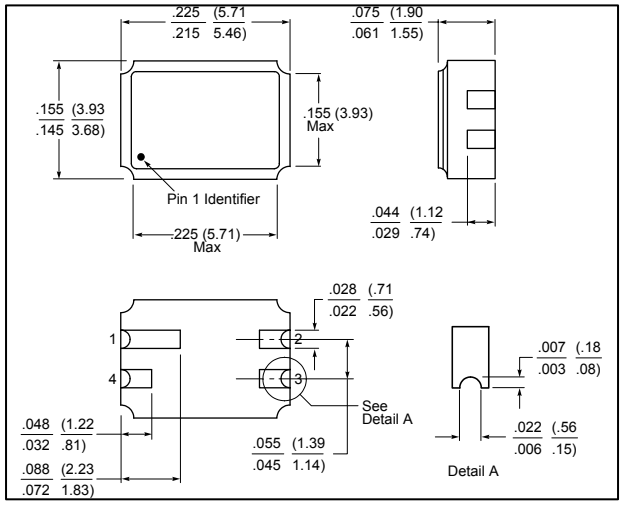
ELECTRICAL CHARACTERISTICS (ALL ELECTRICAL CHARACTERISTICS T_A = 25°C)

OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage $V_{(BR)CEO\ (1)}$	I_C = 10mAdc, I_B = 0	150	-	-	Vdc
Collector-Base Breakdown Voltage $V_{(BR)CBO}$	I_C = 10μAdc, I_E = 0	150	-	-	Vdc
Emitter-Base Breakdown Voltage $V_{(BR)EBO}$	I_E = 10μAdc, I_C = 0	6.0	-	-	Vdc
Collector Cutoff Current (I_{CBO})	V_{CB} = 75Vdc, I_E = 0 V_{CB} = 75Vdc, I_E = 0, T_A = 150°C	- -	- -	0.05 50	μAdc μAdc
Emitter Cutoff Current (I_{EBO})	V_{EB} = 4.0Vdc, I_C = 0	-	-	25	nAdc
ON CHARACTERISTICS					
DC Current Gain (h_{FE}) (V_{CE} = 10Vdc)	I_C = 0.1 mAdc I_C = 1.0 mAdc I_C = 10 mAdc (1) I_C = 150 mAdc (1) I_C = 300 mAdc (1)	35 50 75 100 20	-	 300 	-
SMALL-SIGNAL CHARACTERISTICS					
Current Gain, Bandwidth (2) (f_T)	V_{CE} = 20Vdc, I_C = 20mAdc, f = 100MHz	150	-	-	MHz
Output Capacitance (C_{obo})	V_{CB} = 10Vdc, I_E =0, f = 1.0 MHz	-	-	8.0	pF

RATING	CONDITIONS	MIN.	TYP.	MAX.	UNITS
SMALL-SIGNAL CHARACTERISTICS (Contiued)					
Input Capacitance (C_{ibo})	V_{EB} = 0.5 Vdc, I_C = 0, f = 1.0 MHz	-	-	80	pF
Delay Time (t_d)	(I_C = 150 mAdc, I_{B1} = 15 mAdc, V_{CC} =100Vdc, $V_{BE(off)}$ =-2.0Vdc)	-	20	-	ns
Rise Time (t_r)	(I_C = 150 mAdc, I_{B1} = 15 mAdc, V_{CC} =100Vdc, $V_{BE(off)}$ =-2.0Vdc)	-	35	-	ns
Storage Time (t_s)	(I_C = 150 mAdc, I_{B1} = I_{B2} = 15 mAdc, V_{CC} =100Vdc)	-	800	-	ns
Fall Time (t_f)	(I_C = 150 mAdc, I_{B1} = I_{B2} = 15 mAdc, V_{CC} =100Vdc)	-	80	-	ns

(1) Pulsed. Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.
(2) $f_T = |h_{fe}| \bullet f_{test}$

MECHANICAL DIMENSIONS - in inches / mm



PIN 1 - COLLECTOR 1
PIN 2 - EMITTER
PIN 3 - BASE
PIN 4 – NO CONNECTION

LCC-4