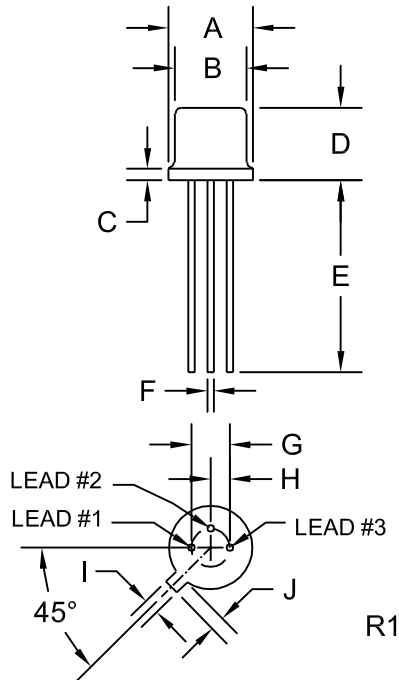


# Package Details - TO-18

## Mechanical Drawing



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

### LEAD CODE:

#### SCR

- 1) CATHODE
- 2) GATE
- 3) ANODE

#### \*FET

- |           |    |           |
|-----------|----|-----------|
| 1) SOURCE |    | 1) SOURCE |
| 2) GATE   | or | 2) DRAIN  |
| 3) DRAIN  |    | 3) GATE   |

#### TRANSISTOR

- 1) EMITTER
- 2) BASE
- 3) COLLECTOR

\* Note: See individual device datasheet for pinout information

### Packing Code: D

D = White corrugated box with black conductive coating (surface resistivity of  $<10^5$  ohms per square).

Standard Packing Quantity: 2K

# Material Composition Specification

## TO-18 Case



Device average mass . . . . . **312.4 mg**  
 Fluctuation margin . . . . . **+/-10%**

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	1.6%	5.0	Si	7440-21-3	1.6%	5.0	16,004
bond wire	Al alloy	0.125%	0.39	Al	7429-90-5	0.122%	0.38	1,216
				Si	7440-21-3	0.003%	0.01	32
header	Kovar (Fe/Ni/Co alloy)	58.8%	183.71	Fe	7439-89-6	22.161%	69.236	221,615
				Ni	7440-02-0	14.511%	45.334	145,108
				glass	Proprietary	13.444%	42	134,436
				Co	7440-48-4	7.808%	24.392	78,075
				Mn	7439-96-5	0.217%	0.677	2,167
				P	7723-14-0	0.18%	0.561	1,796
				Si	7440-21-3	0.13%	0.406	1,300
				Ag	7440-22-4	0.23%	0.72	2,305
				C	1333-86-4	0.21%	0.067	214
				Cu	7440-50-8	0.09%	0.28	896
can	alloy	36.81%	114.99	S	7704-34-9	0.013%	0.041	131
				Fe	7439-89-6	36.698%	114.65	366,979
				C	1333-86-4	0.017%	0.052	166
				Mn	7439-96-5	0.074%	0.23	736
can plating (inner layer)	nickel	1.06%	3.32	Al	7429-90-5	0.019%	0.06	192
				Ni	7440-02-0	1.06%	3.32	10,627
can plating (outer layer)	matte tin**	1.44%	4.5	Sn	7440-31-5	1.44%	4.5	14,404
lead free termination plating*	matte tin**	0.16%	0.5	Sn	7440-31-5	0.16%	0.5	1,601

\*For Lead Free termination plating, add suffix "LEAD FREE" to part number.  
 \*\*Contact the Central Semiconductor Sales Department for tin/lead plating availability.

Disclaimer  
 The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R2 (25-November 2014)