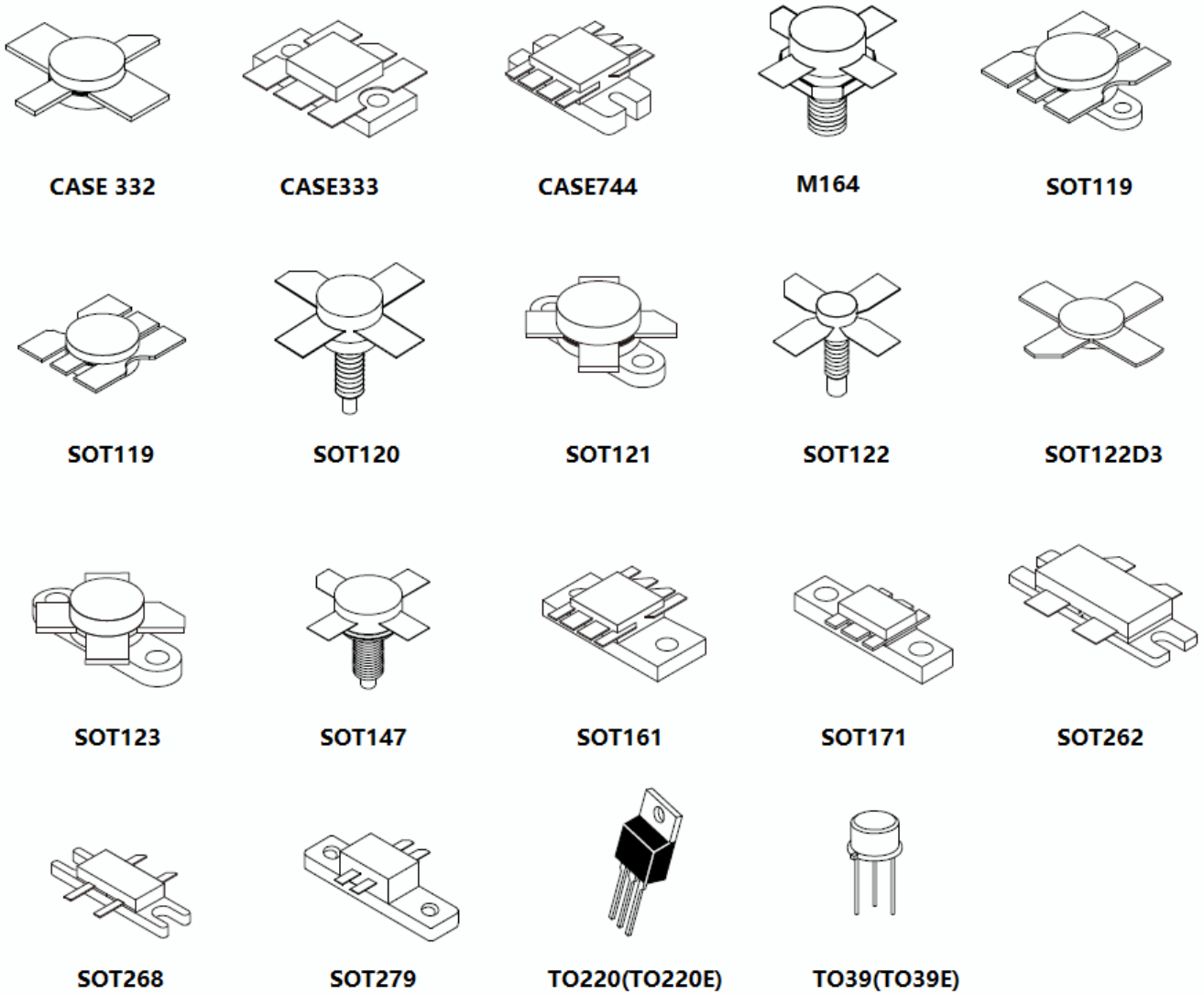
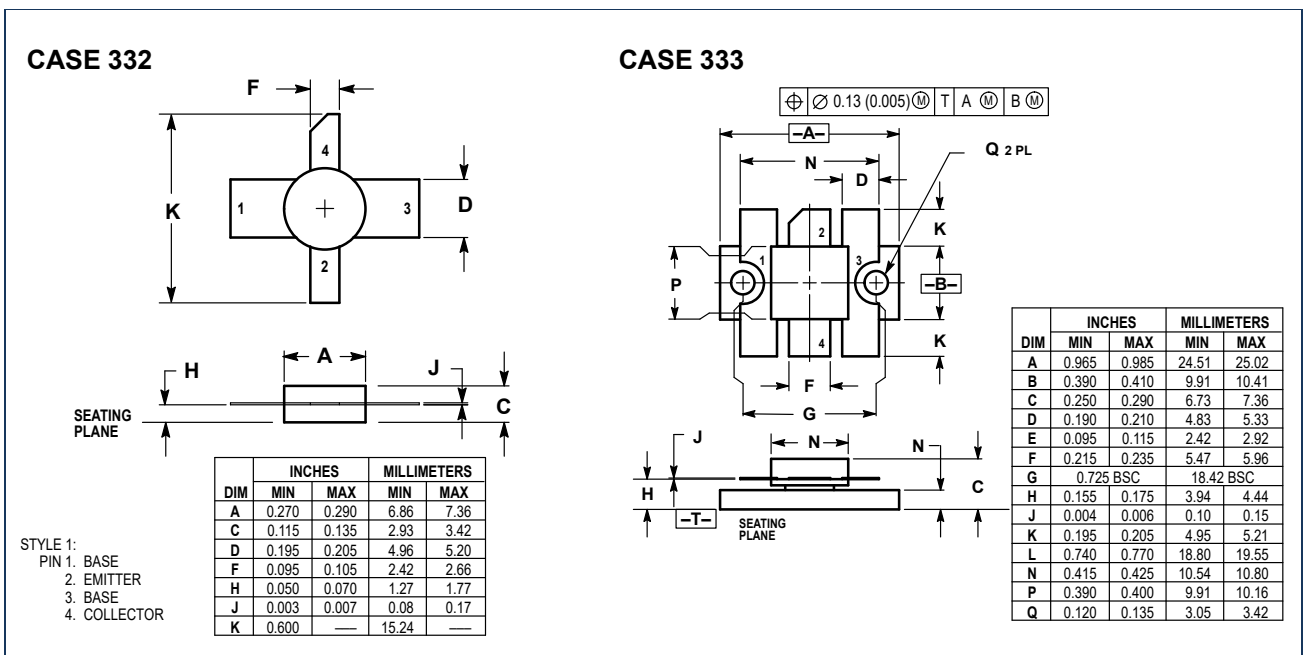


所用外形(2023-10-08) / All PACKAGES HG USES(8th, Oct, 2023)



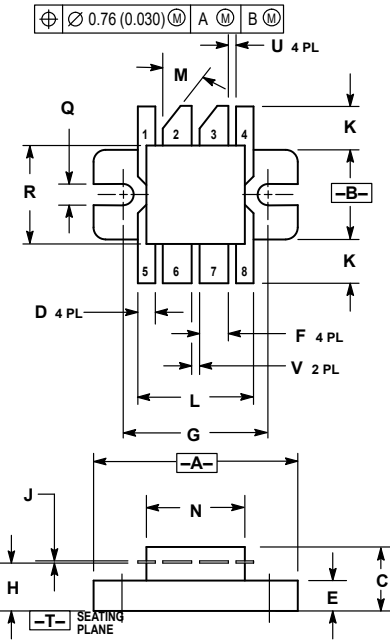
外形尺寸 / PACKAGE OUTLINES



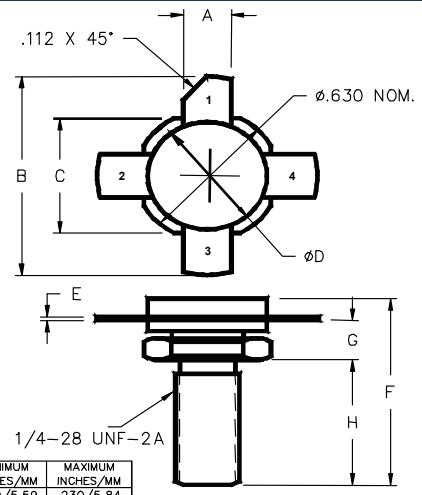
CASE 744

- PIN 1. EMITTER (SOURCE)
- 2. COLLECTOR (DRAIN)
- 3. COLLECTOR (DRAIN)
- 4. EMITTER (SOURCE)
- 5. EMITTER (SOURCE)
- 6. BASE (GATE)
- 7. BASE (GATE)
- 8. EMITTER (SOURCE)

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	22.60	23.11	0.890	0.910
B	9.52	10.03	0.375	0.395
C	6.65	7.16	0.262	0.282
D	1.60	1.95	0.063	0.077
E	2.94	3.40	0.116	0.134
F	2.87	3.22	0.113	0.127
G	16.51 BSC		0.650 BSC	
H	4.01	4.36	0.158	0.172
J	0.07	0.15	0.003	0.006
K	4.34	4.90	0.171	0.193
L	12.45	12.95	0.490	0.510
M	45° NOM		45° NOM	
N	1.051	11.02	0.414	0.434
Q	3.04	3.35	0.120	0.132
R	9.90	10.41	0.390	0.410
U	1.02	1.27	0.040	0.050
V	0.64	0.89	0.025	0.035



M164

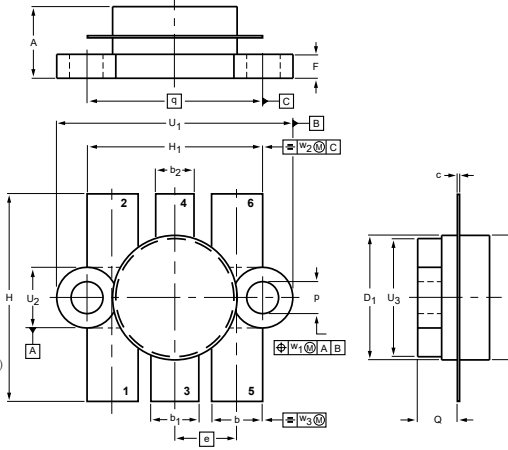


DIM	MINIMUM		MAXIMUM	
	INCHES	MM	INCHES	MM
A	.220	5.59	.230	5.84
B			1.050	26.67
C	.545	13.84	.555	14.10
D	.495	12.57	.505	12.83
E	.003	0.08	.007	0.18
F			.810	20.57
G	.185	4.70	.198	5.03
H	.497	12.62	.530	13.46

- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

SOT119

- PIN 1. EMITTER (SOURCE)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. COLLECTOR (DRAIN)
- 5. EMITTER (SOURCE)
- 6. EMITTER (SOURCE)

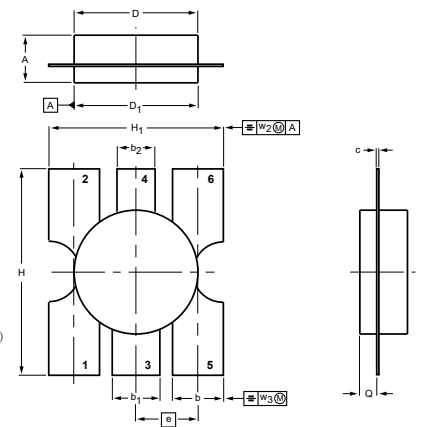


DIMENSIONS

UNIT	A	b	b ₁	b ₂	c	D	D ₁	e	F	H	H ₁	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	w ₃
mm	7.39	5.59	5.34	4.07	0.18	12.86	12.83	0.18	2.54	22.10	18.55	3.31	4.58	18.42	25.23	6.48	12.76	0.51	1.02	0.26
inches	0.291	0.220	0.210	0.160	0.007	0.505	0.505	0.255	0.100	0.870	0.730	0.130	0.180	0.725	0.993	0.255	0.502	0.020	0.040	0.010

SOT119D3

- PIN 1. EMITTER (SOURCE)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. COLLECTOR (DRAIN)
- 5. EMITTER (SOURCE)
- 6. EMITTER (SOURCE)

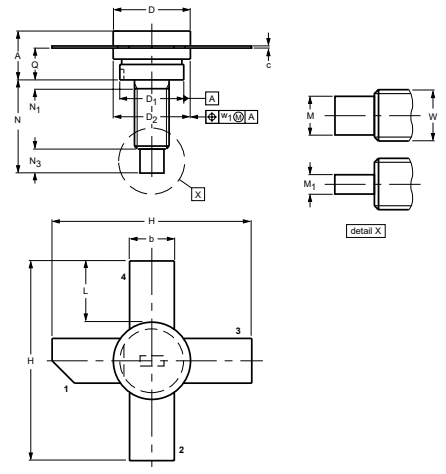


DIMENSIONS

UNIT	A	b	b ₁	b ₂	c	D	D ₁	e	H	H ₁	Q	w ₂	w ₃
mm	4.53	5.59	5.34	4.07	0.16	12.86	12.83	0.18	21.97	18.55	1.71	0.51	0.26
inches	0.178	0.220	0.210	0.160	0.006	0.506	0.505	0.255	0.865	0.730	0.067	0.020	0.010

SOT120

- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

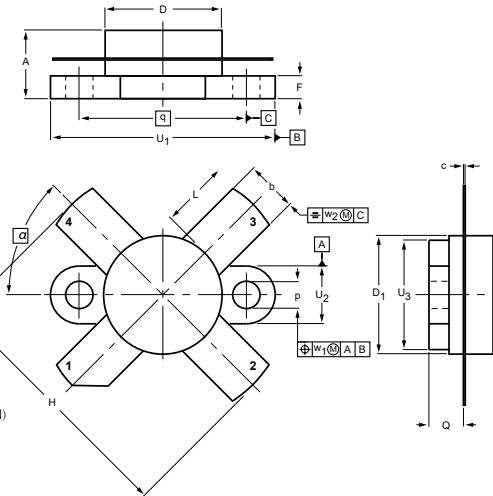


DIMENSIONS

UNIT	A	b	c	D	D ₁	D ₂	H	L	M	M ₁	N	N ₁	N ₃	Q	W	w ₁
mm	5.97	5.90	0.18	9.73	8.39	9.66	27.44	9.00	3.41	1.66	12.83	1.60	3.31	4.35	8-32	0.38
inches	0.235	0.232	0.007	0.383	0.330	0.380	1.080	0.354	0.134	0.065	0.505	0.063	0.130	0.171	UNC	0.015

SOT121

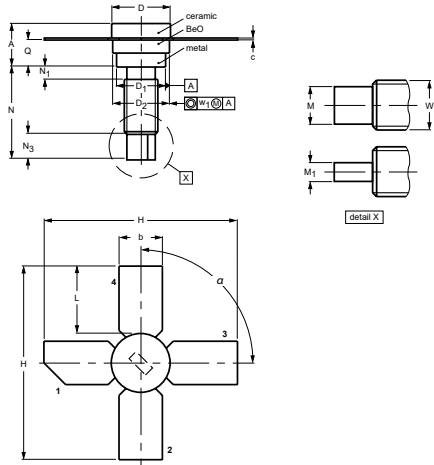
- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)



DIMENSIONS

UNIT	A	b	c	D	D ₁	F	H	L	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	α
mm	7.27	5.82	0.16	12.86	12.83	2.67	28.45	7.93	3.30	4.45	18.42	24.90	6.48	12.32	0.51	1.02	45°
inches	0.286	0.229	0.006	0.506	0.505	0.105	1.120	0.312	0.130	0.175	0.725	0.99	0.255	0.485	0.020	0.040	

SOT122

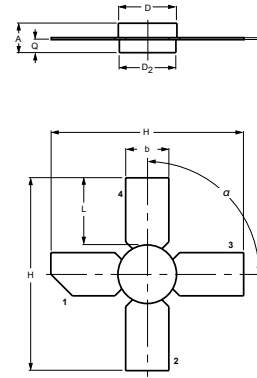


- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	b	c	D	D ₁	D ₂	H	L	M ₁	M	N	N ₁ max.	N ₃	Q	W	w ₁	α
mm	5.97 4.74	5.85 5.58	0.18 0.14	7.50 7.23	6.48 6.22	7.24 6.93	27.56 25.78	9.91 9.14	3.18 2.66	1.66 1.39	11.82 11.04	1.02	3.86 2.92	3.38 2.74	8-32 UNC	0.381	90°

SOT122D3

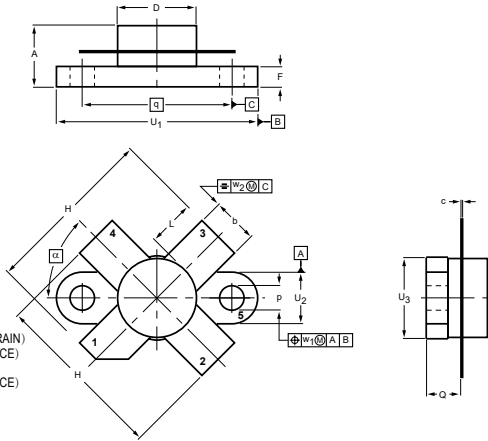


- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	b	c	D	D ₂	H	L	Q	α
mm	4.17 3.27	5.85 5.58	0.18 0.14	7.50 7.23	7.24 6.98	27.56 25.78	9.91 9.14	1.58 1.27	90°

SOT123

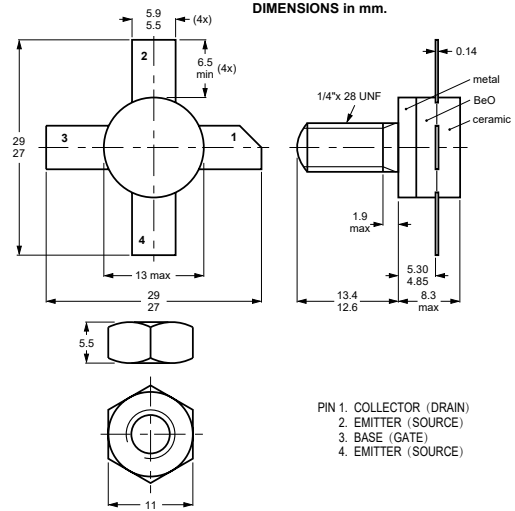


- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	b	c	D	D ₁	F	H	L	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	α
mm	7.47 6.37	5.82 5.56	0.18 0.10	9.73 9.47	9.63 9.42	2.72 2.31	20.71 19.93	5.61 5.16	3.33 3.04	4.83 4.11	18.42	25.15 24.38	6.61 6.09	9.78 9.39	0.51	1.02	45°
inches	0.294 0.251	0.229 0.219	0.007 0.004	0.383 0.373	0.397 0.371	0.107 0.091	0.815 0.785	0.221 0.203	0.131 0.120	0.182 0.162	0.725	0.99 0.96	0.26 0.24	0.385 0.370	0.02	0.04	

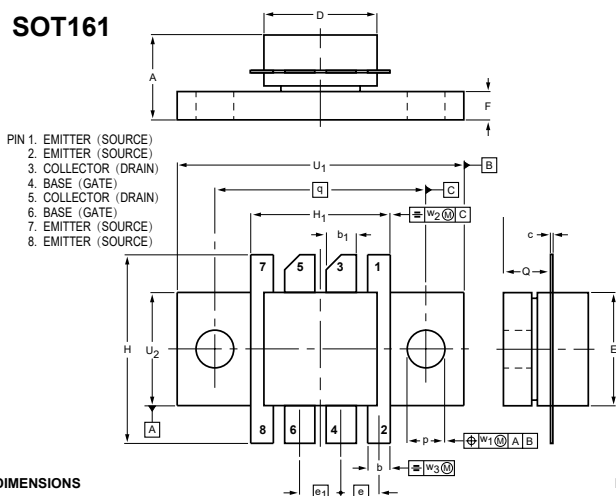
SOT147



DIMENSIONS in mm.

- PIN 1. COLLECTOR (DRAIN)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. EMITTER (SOURCE)

SOT161

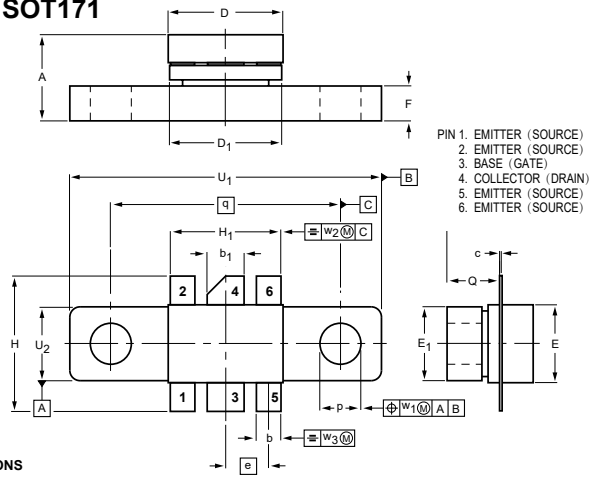


- PIN 1. EMITTER (SOURCE)
- 2. EMITTER (SOURCE)
- 3. COLLECTOR (DRAIN)
- 4. BASE (GATE)
- 5. COLLECTOR (DRAIN)
- 6. BASE (GATE)
- 7. EMITTER (SOURCE)
- 8. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	b	b ₁	c	D	E	e	e ₁	F	H	H ₁	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	w ₃	α	
mm	7.27 6.47	2.04 1.77	2.93 2.66	0.18 0.10	10.22 10.00	10.22 10.00	3.50 3.80	3.80 2.08	2.70 2.08	17.00 16.00	12.83 12.57	3.36 2.92	4.32 4.06	18.42	24.97 24.71	10.34 10.08	0.51	1.02	0.26			
inches	0.286 0.255	0.080 0.070	0.115 0.105	0.007 0.004	0.402 0.394	0.402 0.394	0.138 0.150	0.150 0.082	0.106 0.082	0.669 0.630	0.505 0.495	0.132 0.120	0.170 0.160	0.725	0.983 0.973	0.407 0.397	0.02	0.04	0.01			

SOT171

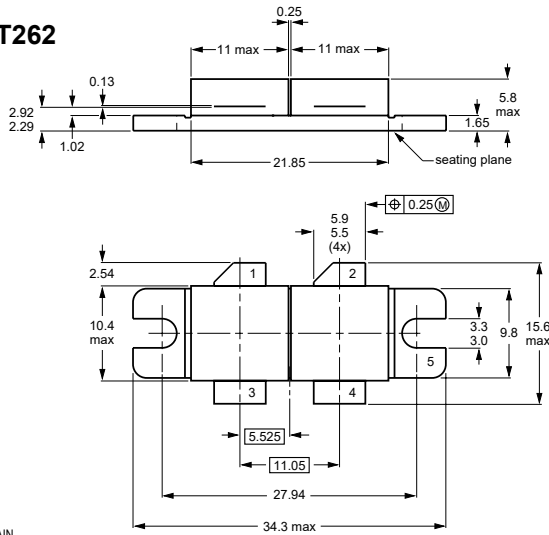


- PIN 1. EMITTER (SOURCE)
- 2. EMITTER (SOURCE)
- 3. BASE (GATE)
- 4. COLLECTOR (DRAIN)
- 5. EMITTER (SOURCE)
- 6. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	b	b ₁	c	D	D ₁	E	E ₁	e	F	H	H ₁	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	w ₃	α
mm	6.81 6.07	2.15 1.85	3.20 2.89	0.16 0.07	9.30 9.04	9.95 9.74	6.00 5.70	3.58	3.58	3.05 2.54	11.31 10.54	9.27 9.01	3.43 3.17	4.32 4.11	18.42	24.90 24.63	6.00 5.70	0.51	1.02	0.26		
inches	0.268 0.239	0.085 0.073	0.126 0.114	0.006 0.003	0.364 0.356	0.366 0.354	0.234 0.224	0.140	0.140	0.120 0.100	0.445 0.415	0.365 0.355	0.135 0.125	0.170 0.162	0.725	0.980 0.970	0.236 0.224	0.02	0.04	0.01		

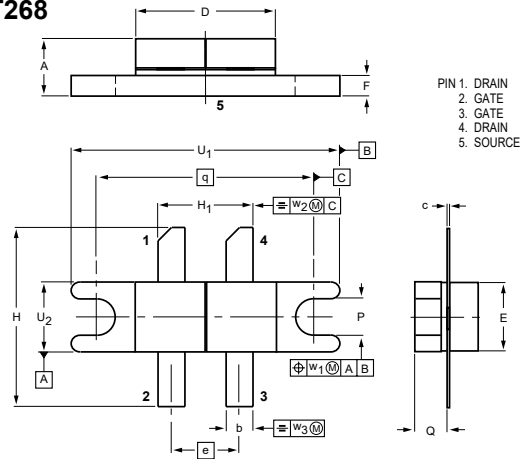
SOT262



PIN 1. DRAIN
2. DRAIN
3. GATE
4. GATE
5. SOURCE

DIMENSIONS in mm.

SOT268

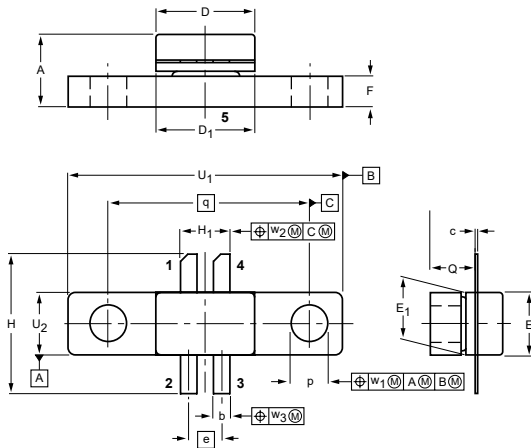


PIN 1. DRAIN
2. GATE
3. GATE
4. DRAIN
5. SOURCE

DIMENSIONS

UNIT	A	b	c	D	E	e	F	H	H ₁	p	Q	q	U ₁	U ₂	w ₁	w ₂	w ₃
mm	4.91	1.66	0.13	12.96	6.48	6.45	2.04	17.02	9.23	3.43	2.67	18.42	24.90	6.61	0.51	1.02	0.26
inches	0.193	0.065	0.005	0.510	0.255	0.254	0.080	0.670	0.324	0.135	0.105	0.725	0.980	0.260	0.020	0.040	0.010
	0.165	0.055	0.003	0.490	0.245		0.070	0.630	0.304	0.125	0.095	0.970	0.250				

SOT279

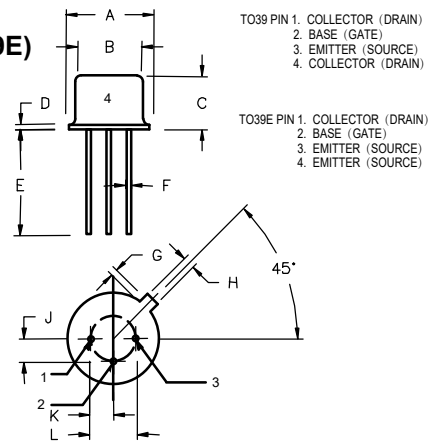


PIN 1. DRAIN
2. GATE
3. GATE
4. DRAIN
5. SOURCE

DIMENSIONS

UNIT	A	b	c	D	D ₁	E	E ₁	e	F	H	H ₁	p	Q	q	U ₁	U ₂	w ₁	w ₂	w ₃
mm	6.84	1.65	0.15	9.25	9.02	5.94	5.97	3.05	3.05	12.96	4.96	3.48	4.34	18.42	24.90	5.97	0.25	0.51	0.25
	6.01	1.40	0.10	9.04	9.02	5.74	5.72	2.54	2.54	11.94	4.19	3.23	4.04	17.25	24.64	5.72	0.25	0.51	0.25
inches	0.269	0.065	0.006	0.364	0.365	0.234	0.235	0.120	0.120	0.510	0.195	0.137	0.171	0.725	0.980	0.235	0.010	0.020	0.010
	0.237	0.055	0.004	0.356	0.355	0.228	0.225	0.100	0.100	0.470	0.165	0.127	0.159	0.725	0.970	0.225	0.010	0.020	0.010

TO39(TO39E)



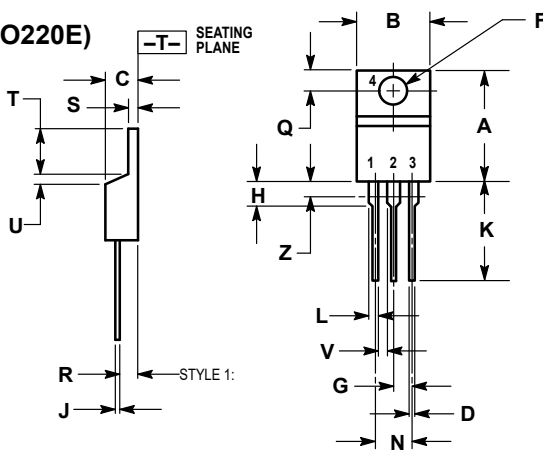
TO39 PIN 1. COLLECTOR (DRAIN)
2. BASE (GATE)
3. EMITTER (SOURCE)
4. COLLECTOR (DRAIN)

TO39E PIN 1. COLLECTOR (DRAIN)
2. BASE (GATE)
3. EMITTER (SOURCE)
4. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	B	C	D	E	F	G	H	J	K	L
mm	9.40	8.51	6.60	1.14	12.70	0.48	1.02	0.86	2.67	2.67	5.33
	8.89	8.00	6.10	0.38	12.70	0.41	0.74	0.71	2.41	2.41	4.83
inches	0.370	0.335	0.260	0.045	0.500	0.019	0.040	0.034	0.105	0.105	0.210
	0.350	0.315	0.240	0.015	0.500	0.016	0.029	0.028	0.095	0.095	0.190

TO220(TO220E)



TO220 PIN 1. BASE (GATE)
2. COLLECTOR (DRAIN)
3. EMITTER (SOURCE)
4. COLLECTOR (DRAIN)

TO220E PIN 1. BASE (GATE)
2. EMITTER (SOURCE)
3. COLLECTOR (DRAIN)
4. EMITTER (SOURCE)

DIMENSIONS

UNIT	A	B	C	D	F	G	H	J	K	L	N	Q	R	S	T	U	V	Z
mm	15.75	10.28	4.82	0.88	3.73	2.66	3.93	0.64	14.27	1.52	5.33	3.04	2.79	1.39	6.47	1.27	--	2.04
	14.48	9.66	4.07	0.64	3.61	2.42	2.8	0.46	12.70	1.15	4.83	2.54	2.04	1.15	5.97	0.00	1.15	--
inches	0.620	0.405	0.19	0.035	0.147	0.105	0.155	0.025	0.562	0.060	0.210	0.12	0.11	0.055	0.255	0.05	--	0.08
	0.570	0.380	0.16	0.025	0.142	0.095	0.110	0.018	0.500	0.045	0.190	0.10	0.08	0.045	0.235	0.00	0.045	--