



SI transistors Selection Guide

一、 Compact fluorescent lamps (Energy-Saving Lamps) :

Type	Package	Die Size (m^2)	BV _{ceo} (V)	I _c (A)	Application (W)
BUL6820A	TO-92	0.65 × 0.65	400	0.18	3-5
MJE13001S	TO-92	0.75 × 0.75	400	0.3	5-8
MJE13001	TO-92	0.83 × 0.83	400	0.3	5-9
BUL6821	TO-92	1.00 × 1.00	400	0.4	7-11
BUL6822	TO-92	1.18 × 1.18	400	0.8	9-13
BUL6822A	TO-92	1.30 × 1.30	400	1.0	11-14
BUL6823	TO-92	1.42 × 1.42	400	1.2	12-15
MJE13003BR(H)	TO-126	1.30 × 1.30	400	1.0	11-15
BUL6802	TO-126	1.42 × 1.42	400	1.2	13-18
BUL6823A	TO-92	1.63 × 1.63	400	1.5	12-17
MJE13003BR	TO-126	1.63 × 1.63	400	1.5	13-18
MJE13003B	TO-220	1.63 × 1.63	400	1.5	15-20
MJE13003	TO-126/TO-220	1.80 × 1.80	400	2.0	20-23
BUL1688	SOT-82	2.52 × 2.52	400	5.0	20-25
BLD102D	TO-92	1.13 × 1.13	400	0.8	9-13
BLD112D	TO-92	1.26 × 1.26	400	1.0	9-14
BLD122D	TO-92/TO-126	1.36 × 1.36	400	1.2	13-18
BLD123D	TO-126	1.58 × 1.58	400	1.5	16-20
BLD133D	TO-92	1.80 × 1.80	400	2.0	18-20
MJE13003DA	TO-126	1.73 × 1.73	400	2.0	18-21
MJE13003D	TO-126/TO-220	1.80 × 1.80	400	2.0	18-23
“ L ” SERIES (Suitable for AC input 100-120V)					
Type	Package	Die Size (m^2)	BV _{ceo} (V)	I _c (A)	Application (W)
BUL6822L	TO-92	1.18 × 1.18	200	1.2	9-13
BLD112DL	TO-92	1.20 × 1.20	200	1.5	9-14
BLD122DL	TO-92/TO-126	1.40 × 1.40	200	2.0	13-18
BLD123DL	TO-92/TO-126	1.50 × 1.50	200	3.0	15-23
BLD133DL	TO-126/TO-220	1.80 × 1.80	200	5.0	18-25
BLD135DL	TO-126/SOT-82	1.90 × 1.90	200	6.0	20-30

二、 Industrial lamp ballasts :

Type	Package	Die Size (m^2)	BV _{ceo} (V)	I _c (A)	Application (W) (W)
BUL6822	TO-92	1.18 × 1.18	400	0.8	14
MJE13003	TO-220	1.80 × 1.80	400	2	20-23
MJE13005H	TO-220	2.08 × 2.08	400	3.5	26-40
MJE13005	TO-262/TO-220	2.52 × 2.52	400	5.0	26-45



MJE13007H	TO-220	2.90 × 2.90	400	6.0	45-75
MJE13007A	TO-220	3.38 × 3.38	400	8.0	45-80
MJE13007	TO-262/TO-263	3.70 × 3.70	400	8.0	45-85
MJE13007	TO-220	3.70 × 3.70	400	8.0	45-85
MJE13009	TO-220	4.05 × 4.08	400	12.0	55-105
BLD128DA	SOT-82/TO-220	2.16 × 2.16	400	3.0	22-40
BLD128D	TO-252	2.60 × 2.60	400	5.0	26-45
BLD128D	SOT-82/TO-220	2.60 × 2.60	400	5.0	26-45
BLD128DFP	TO-220FP	2.60 × 2.60	400	5.0	26-40
BLD137DA	TO-220	3.30 × 3.30	400	8.0	45-80
BLD137D	TO-220	3.70 × 3.70	400	8.0	45-85
BLD139D	TO-220	4.05 × 4.08	400	12.0	55-105
“ L ” SERIES (Suitable for AC input 100-120V)					
BLD135DL	TO-220	1.90 × 1.90	200	6.0	20-30
BLD155DL	TO-220	2.20 × 2.20	200	7.0	22-40
BLD128DL	TO-220	2.60 × 2.60	200	8.0	26-45
BLD137DL	TO-220	3.00 × 3.00	200	12.0	45-85
BLD139DL	TO-220	3.50 × 3.30	200	20.0	55-105
MOSFET SERIES					
Type	Package	Die Size (m m ²)	BVDS (V)	ID (A)	Application (W)
SIF830	TO-220	3.83 × 2.97	500	4.5	26-45
SIF4N60	TO-220	3.83 × 2.97	600	4.4	26-45
SIF4N60FP	TO-220FP	3.83 × 2.97	600	2.60	26-40

三、 Halogen Lamps transformer :

Type	Package	Die Size (m m ²)	BVceo (V)	Ic (A)	Application (W)
MJE13003	TO-220	1.80 × 1.80	400	2.0	Up to 25W
MJE13005H	TO-220	2.08 × 2.08	400	3.5	Up to 50W
MJE13005	TO-262/TO-220	2.52 × 2.52	400	5.0	Up to 60W
MJE13007H	TO-220	2.90 × 2.90	400	6.0	Up to 75W
MJE13007A	TO-220	3.38 × 3.38	400	8.0	Up to 105W
MJE13007	TO-262/TO-220	3.70 × 3.70	400	8.0	Up to 105W
MJE13009	TO-220	4.05 × 4.08	400	12.0	Up to 150W
BLD128D	SOT-82/TO-220	2.60 × 2.60	400	5.0	Up to 75W
BLD137DA	TO-220	3.30 × 3.30	400	8.0	Up to 105W
BLD137D	TO-220	3.70 × 3.70	400	8.0	Up to 105W
BLD139D	TO-220	4.05 × 4.08	400	12.0	Up to 150W

* Suffix D = Integrated free-wheeling diode