



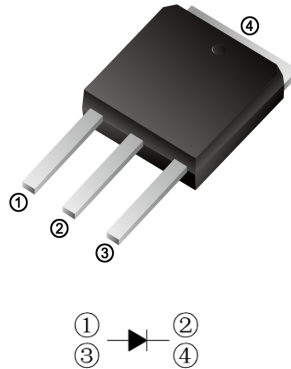
# G1001 THRU G1010

## Surface Mount Standard Rectifiers

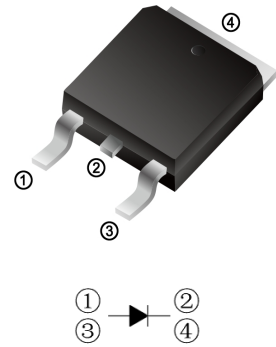
### FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

### TO-251(I-PAK)



### TO-252(D-PAK)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	TO-251	G1001VS	G1002VS	G1004VS	G1006VS	G1008VS	G1010VS	UNIT
	TO-252	G1001DS	G1002DS	G1004DS	G1006DS	G1008DS	G1010DS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub(av)< sub=""></sub(av)<>	10.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	180						A
Maximum Forward Voltage at 10.0A DC	V <sub>F</sub>	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5.0 500						uA
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	150						pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	35						°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Mounted on 10cm x 10cm x 1mm copper pad area





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### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1 – FORWARD CURRENT DERATING CURVE

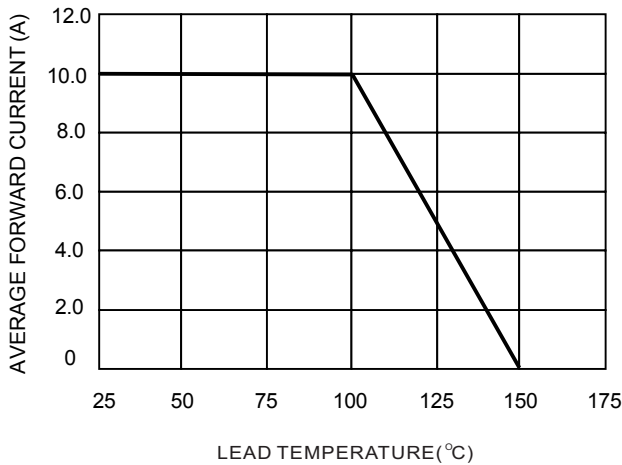


FIG.2-TYPICAL FORWARD CHARACTERISTICS

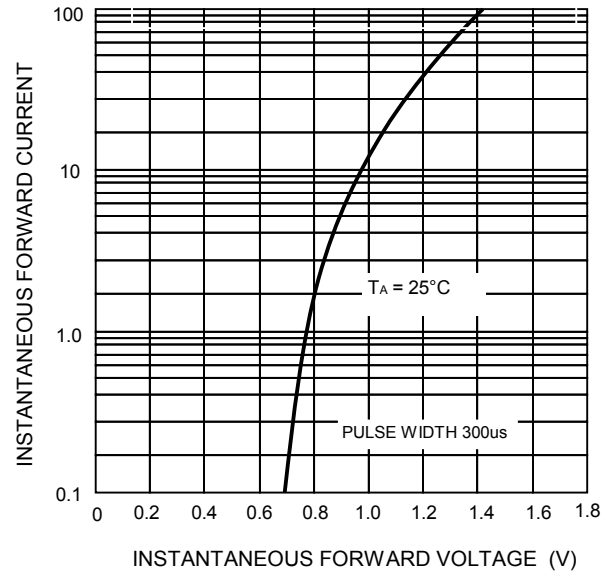


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

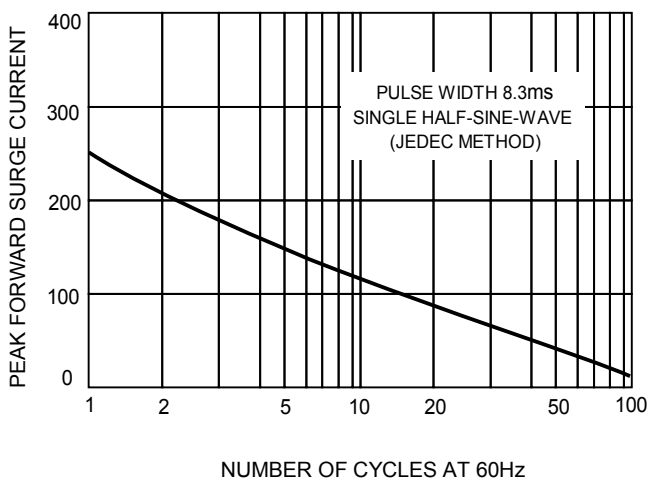
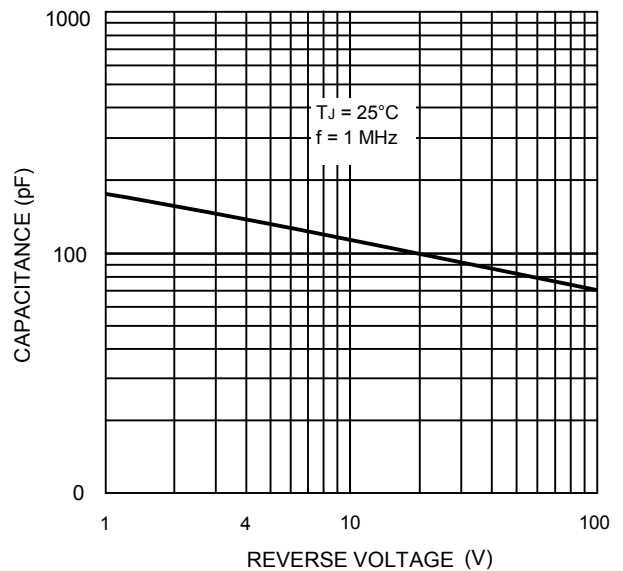


FIG.4 – TYPICAL JUNCTION CAPACITANCE

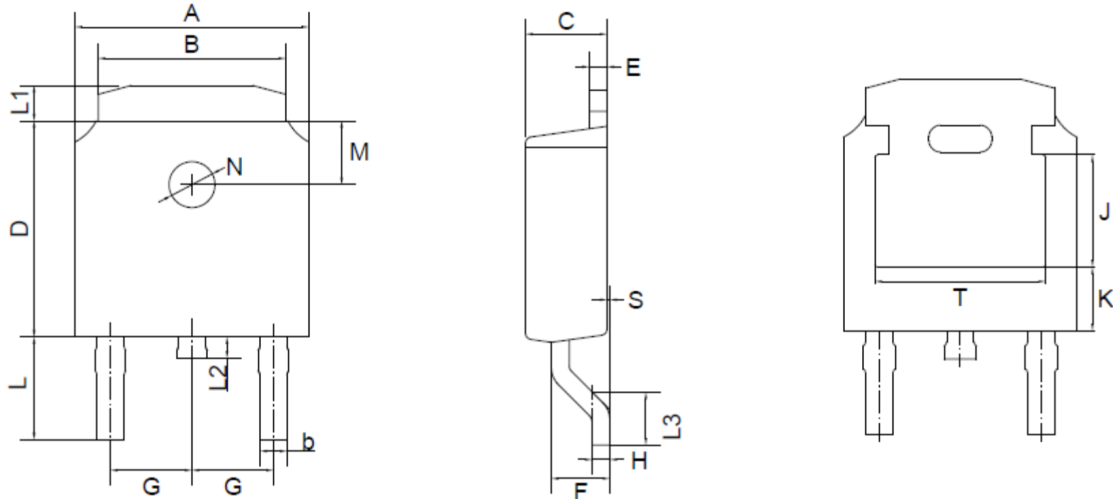




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## Surface Mount Standard Rectifiers

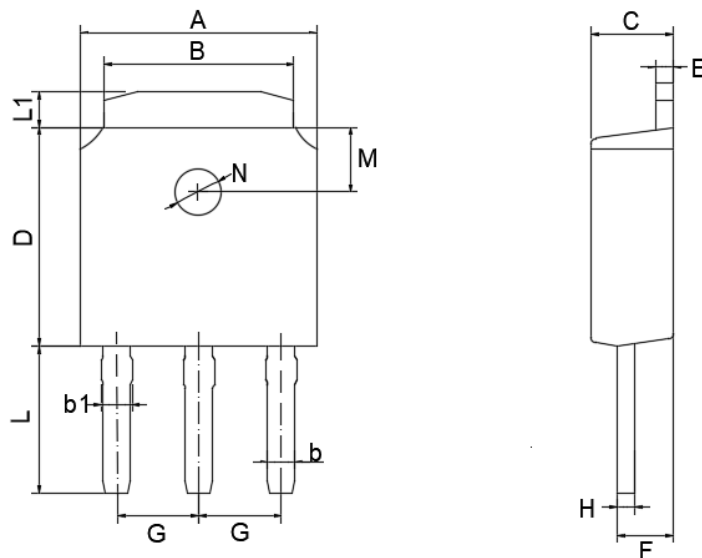
### TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

UNIT	A	B	b	C	D	E	F	G	H	L	L1	L2	L3	S	M	N	J	K	T
mm	max	6.7	5.5	0.8	2.5	6.3	1.8	2.29	0.55	3.1	1.2	1.0	1.75	0.1	1.8	1.3	3.16	1.80	4.83
	min	6.3	5.1	0.3	2.1	5.9	1.3	TYPICAL	0.45	2.7	0.8	0.6	1.40	0.0	TYPICAL	TYPICAL	ref.	ref.	ref.
mil	max	264	217	31	98	248	71	90	22	122	47	39	69	4	71	51	124	71	190
	min	248	201	12	83	232	51	TYPICAL	18	106	31	24	55	0	TYPICAL	TYPICAL	ref.	ref.	ref.

### TO-251(I-PAK) Package Outline Dimensions



TO-251(I-PAK) mechanical data

UNIT	A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	6.70	5.50	0.80	0.90	2.50	6.30	1.80	2.29	0.55	4.30	1.20	1.8	1.3
	min	6.30	5.10	0.30	0.76	2.10	5.90	1.30	TYPICAL	0.45	3.90	0.80	TYPICAL	TYPICAL
mil	max	264	217	31	35	98	248	71	90	22	169	47	71	51
	min	248	201	12	30	83	232	51	TYPICAL	18	154	31	TYPICAL	TYPICAL

