SF501ET(D) THRU SF506ET(D)

Reverse Voltage -100 to 600 Volts Forward Current - 5.0 Ampere

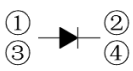
SUPER FAST GLASS PASSIVATED RECTIFIERS

FEATURES

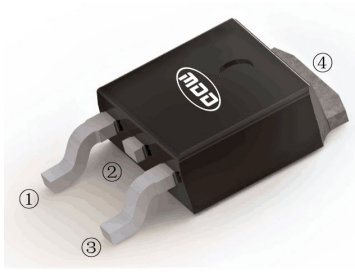
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

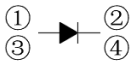
TO-251(I-PAK)





TO-252(D-PAK)





MECHANICAL DATA

Case: TO-251/252 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.0141 ounce(approx), 0.4 grams (approx)

PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
TO-251	13'	330	2500	340×336×29	2500	353×346×365	25000
TO-252	13'	330	2500	340×336×29	2500	353×346×365	25000

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

MCHARACTERISTICS	TO-251 / TO-252	SF 501ET / SF 501ED	SF 502ET / SF 502ED	SF 503ET / SF 503ED	SF 504ET / SF 504ED	SF 505ET / SF 505ED	SF 506ET / SF 506ED	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	70	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	100	200	300	400	500	600	V
Maximum average forward rectified current	$I_{(AV)}$	5.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	150						A
Maximum instantaneous forward voltage at 5.0A DC	V_F	0.95		1.25		1.70		V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	1.0 300						uA
Typical junction capacitance (NOTE 1)	C_J	45						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	15						℃/W
Maximum Reverse Recovery Time(Note3)	Trr	35						ns
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150						℃

Note:1.Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2.Mounted on 10cm x 10cm x 1mm copper pad area
3.Reverse Recovery Test Conditions:IF=0.5A,IR=1A,Irr=0.25A
4.The typical data above is for reference only.

DN:T18B02A0

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Rating and Characteristic Curves

FIG.1 - FORWARD CURRENT DERATING CURVE

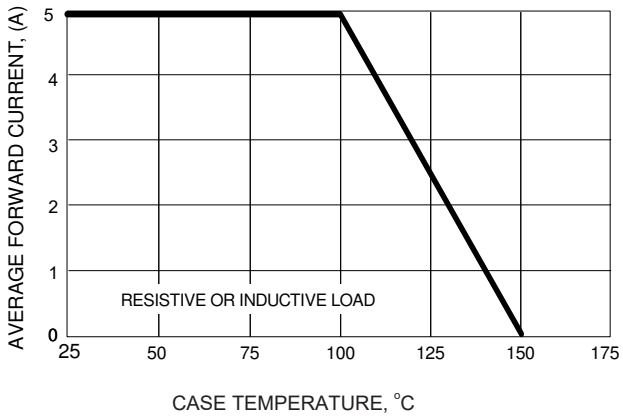


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

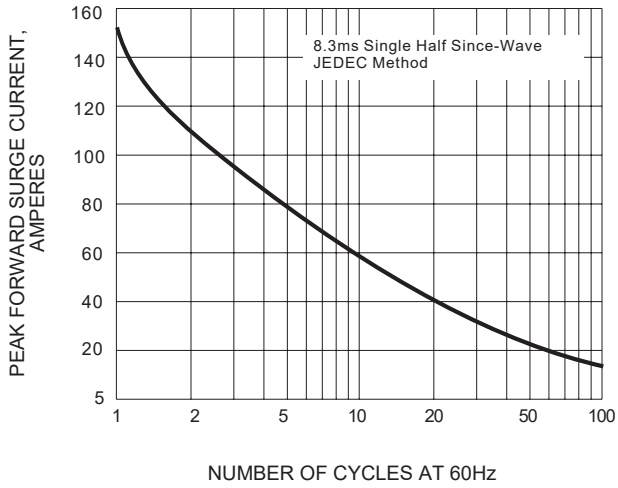


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

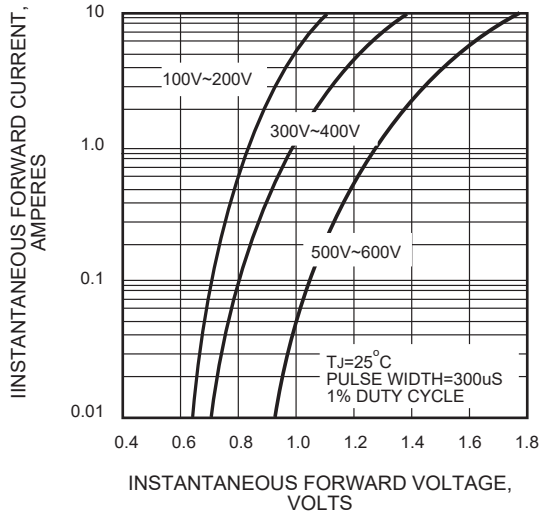


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

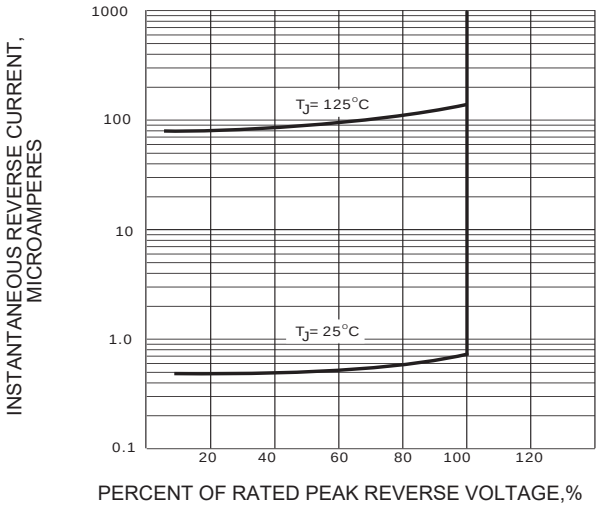
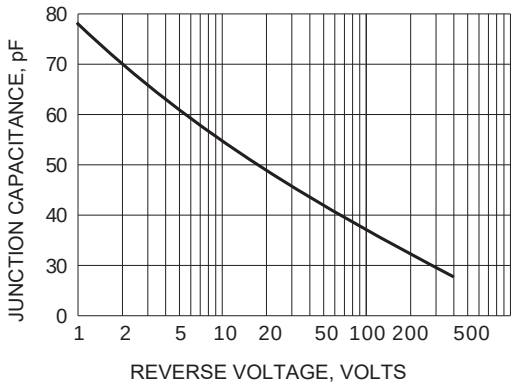


FIG.5 - TYPICAL JUNCTION CAPACITANCE

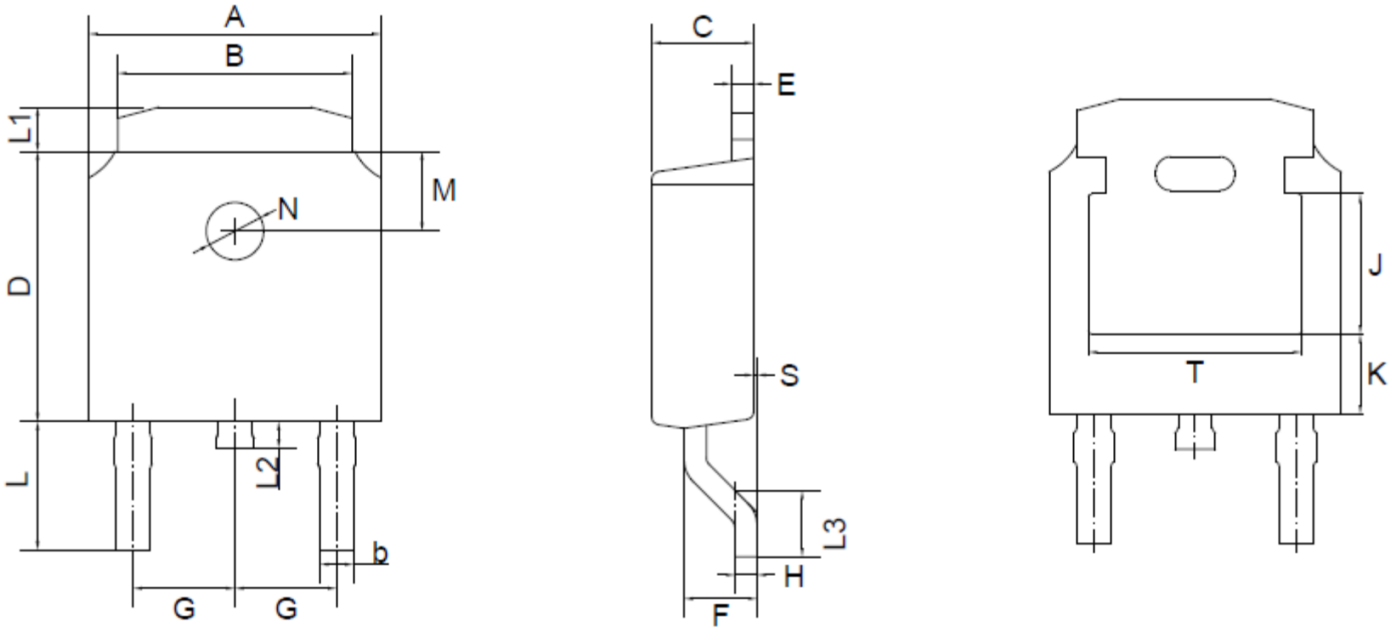


The curve above is for reference only.

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Outlitne Drawing

TO-252(D-PAK) Package Outline Dimensions



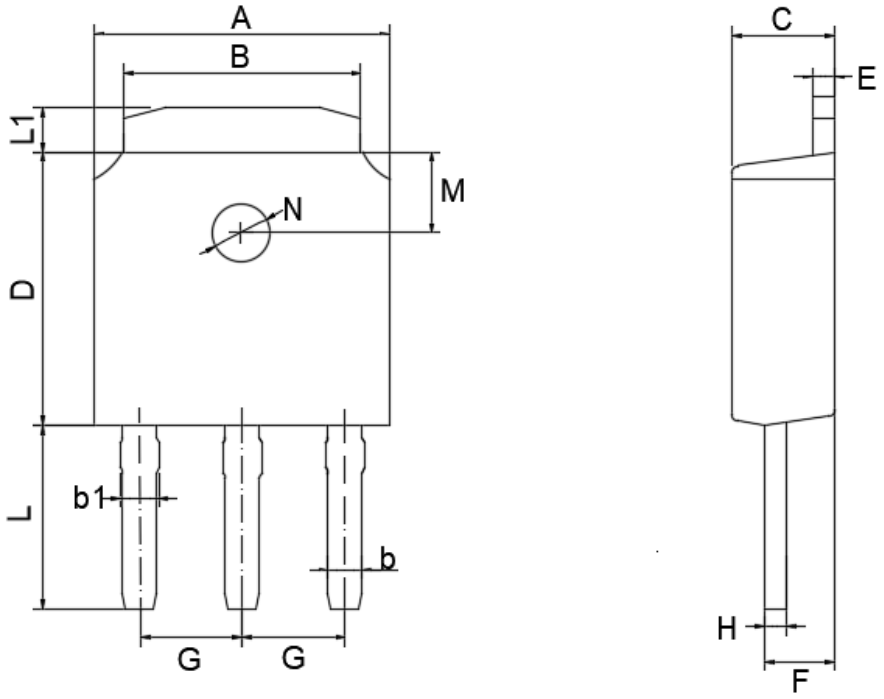
TO-252(D-PAK) mechanical data

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	0.6	1.8	2.29 TYPICAL	0.55	3.1	1.2	1.0	1.75	0.1	1.8 TYPICAL	1.3 TYPICAL	3.16 ref.	1.80 ref.	4.83 ref.
	min	6.3	5.1	0.3	2.1	5.9	0.4	1.3		0.45	2.7	0.8	0.6	1.40	0.0					
mil	max	264	217	31	98	248	24	71	90 TYPICAL	22	122	47	39	69	4	71 TYPICAL	51 TYPICAL	124 ref.	71 ref.	190 ref.
	min	248	201	12	83	232	16	51		18	106	31	24	55	0					

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Outlitne Drawing

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	0.60	1.80	2.29 TYPICAL	0.55	4.30	1.20	1.8 TYPICAL	1.3 TYPICAL
	min	6.30	5.10	0.30	0.76	2.10	5.90	0.40	1.30		0.45	3.90	0.80		
mil	max	264	217	31	35	98	248	24	71	90 TYPICAL	22	169	47	71 TYPICAL	51 TYPICAL
	min	248	201	12	30	83	232	16	51		18	154	31		

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