



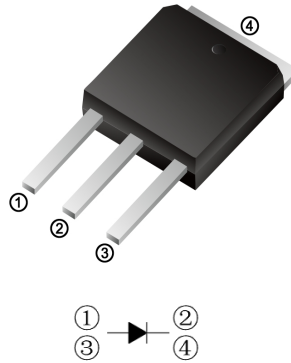
DS601 THRU DS606

Superfast Recovery Rectifiers

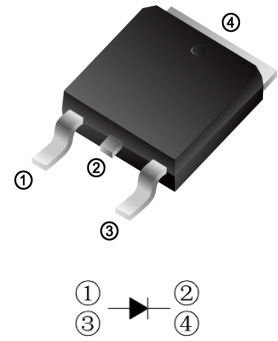
FEATURES

- 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-252	DS601	DS602	DS603	DS604	DS605	DS606	UNIT
Maximum Recurrent 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 <sub(av)< sub=""></sub(av)<>	6.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	150						A
Maximum Forward Voltage at 6.0A DC	V _F	0.95		1.25		1.65		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	1.0 300						uA
Typical Junction Capacitance Per Element (Note1)	C _J	45						pF
Typical Thermal Resistance (Note2)	R _{θJA}	15						°C/W
Maximum Reverse Recovery Time(Note3)	T _{rr}	35						ns
Operating Temperature Range	T _J	-55 to +150						°C
Storage Temperature Range	T _{STG}	-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

3. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{rr}=0.25A





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

FIG.1 - FORWARD CURRENT DERATING CURVE

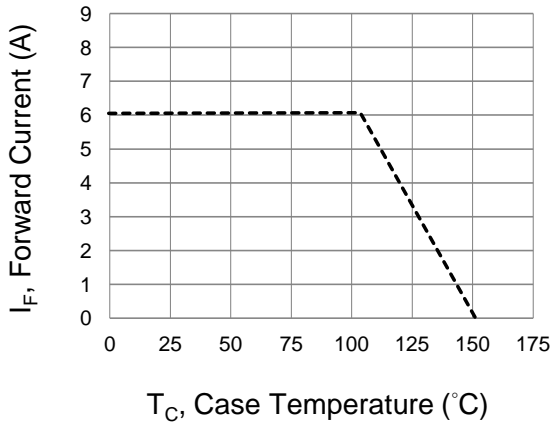


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

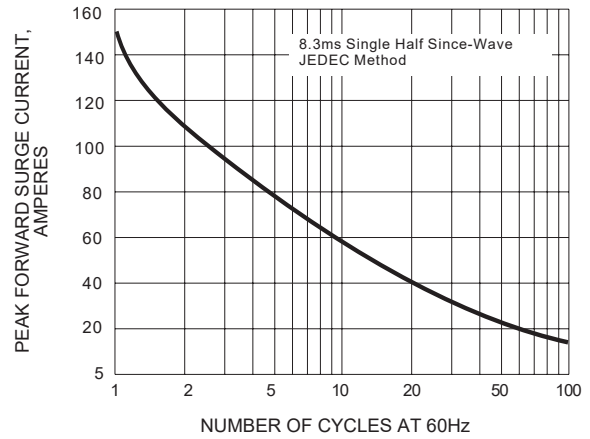


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

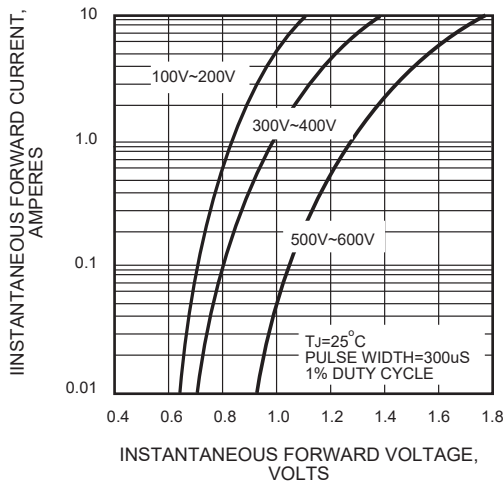


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

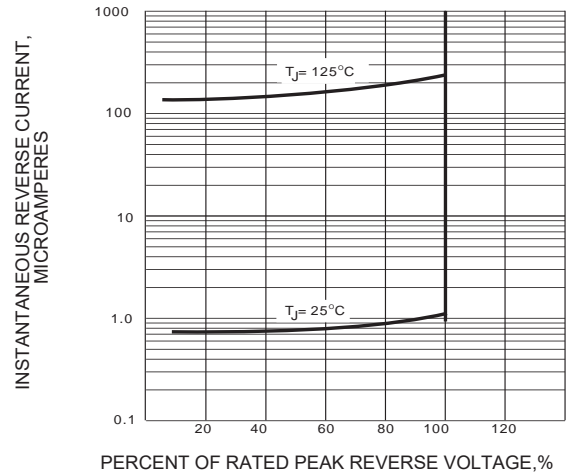
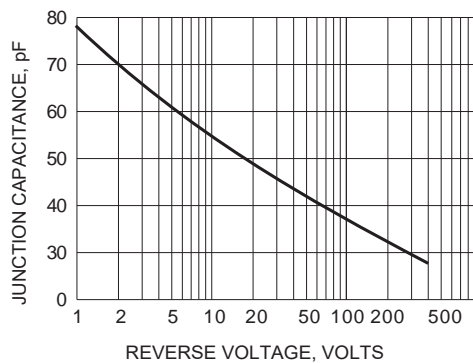


FIG.5 - TYPICAL JUNCTION CAPACITANCE

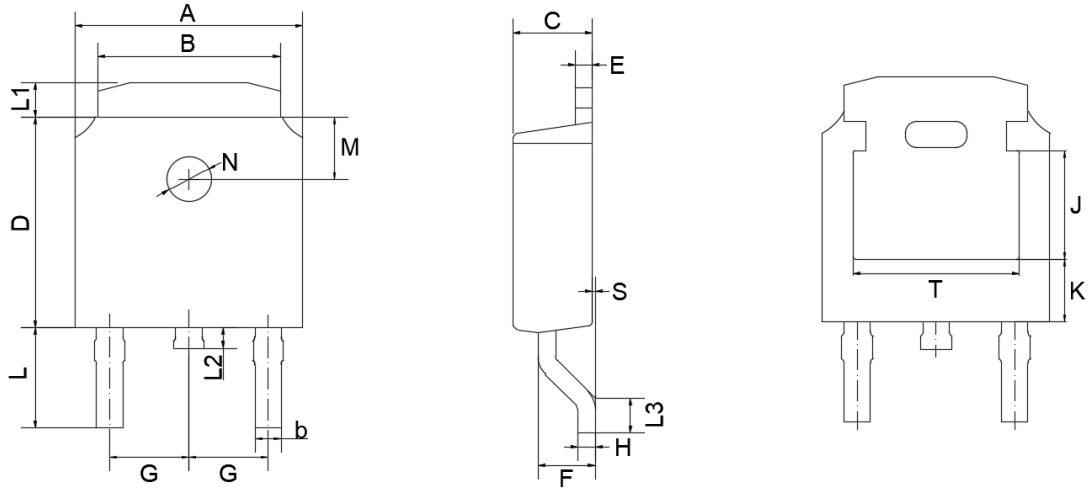




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TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

UNIT		A	B	b	C	D	E	F	G	H	L	L1	L2	L3	M	N	J	K	T
mm	max	6.70	5.50	0.80	2.50	6.30	0.60	1.80	2.29	0.55	3.10	1.20	0.80	1.60	1.8	1.3	3.16	1.80	4.83
	min	6.30	5.10	0.30	2.10	5.90	0.40	1.30	TYPICAL	0.45	2.70	0.80	0.40	1.40	TYPICAL	TYPICAL	ref.	ref.	ref.
mil	max	264	217	31	98	248	24	71	90	22	122	47	31	63	71	51	124	71	190
	min	248	201	12	83	232	16	51	TYPICAL	18	106	31	16	55	TYPICAL	TYPICAL	ref.	ref.	ref.

