

Fast Recovery Epitaxial Diode - 8Amp 600Volt

Features

- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss, High Efficiency
- Halogen-Free

Applications

- Power Factor Correction(PFC)
- AC/DC Converters
- DC/AC Inverters

Maximum ratings

Rating	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	VRRM	600	V
Working Peak Reverse Voltage	VRWM	420	V
DC Blocking Voltage	VDC	600	V
Average Forward Current	IF(AV)	8	A
Non-Repetitive Peak Forward Surge Current	IFSM	80	A
Operating and Storage Temperature	TJ, Tstg	-65 to +175	°C

Electrical characteristics

Rating	Symbol	Value		Unit
Instantaneous Forward Voltage IF = 8.0A, TJ = 25 °C IF = 8.0A, TJ = 125 °C	VF	TYP.	MAX.	V
		1.7	1.9	
		1.4	1.6	
Instantaneous Reverse Current VR = 600V, TJ = 25 °C VR = 600V, TJ = 125 °C	IR	TYP.	MAX.	µA
		0.1	5	
		15	150	
Reverse Recovery Time IF = 0.5A, IR = 1.0A, IRR = 0.25A	trr	TYP.	MAX.	ns
		20	25	
Thermal Resistance, Junction-to-Case TO-252	RθJC	7.0		°C/W

December 2018 / Rev.7.2

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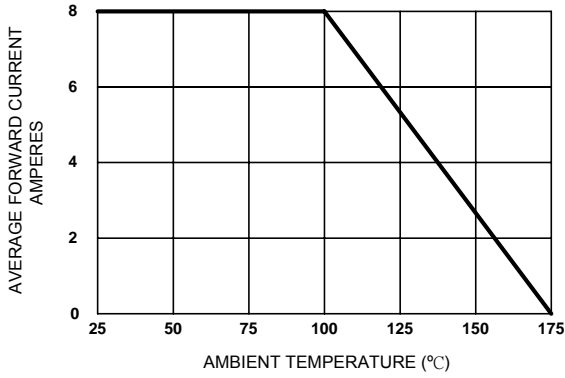


Figure 1. Forward Current Derating Curve

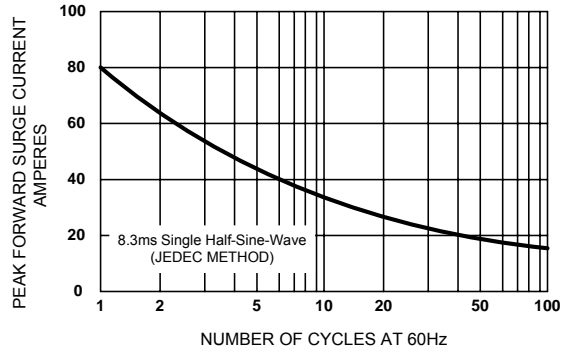


Figure 2. Maximum Non-repetitive Surge Current

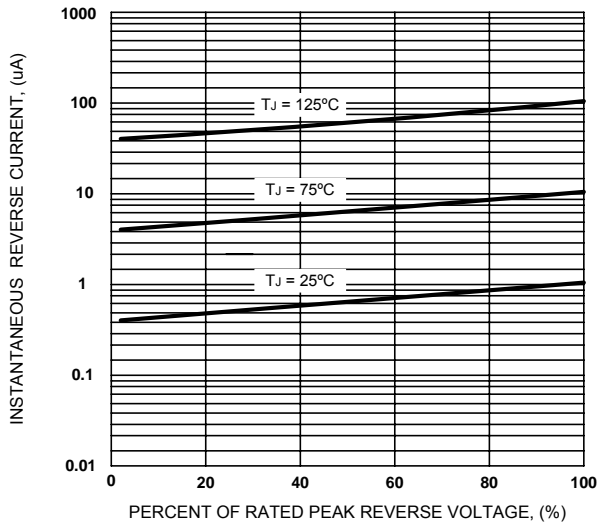


Figure 3. Typical Reverse Characteristics

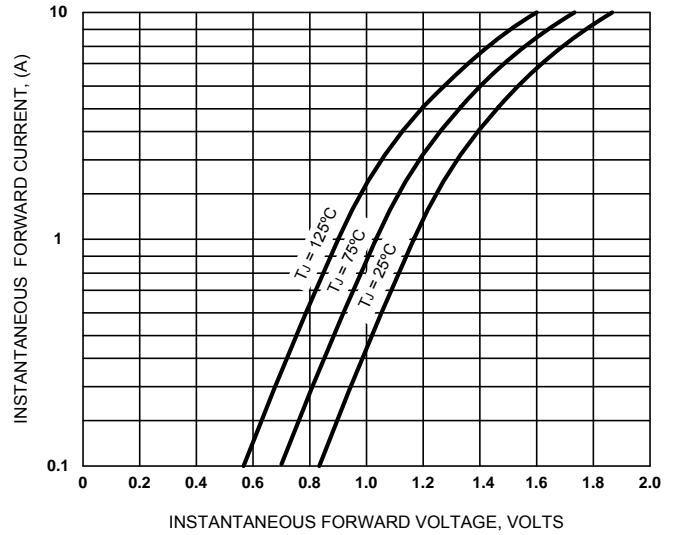


Figure 4. Typical Forward Characteristics

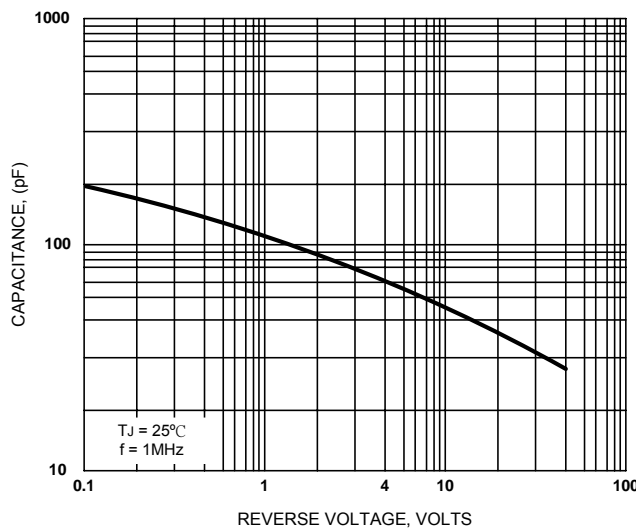
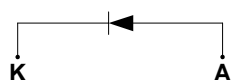
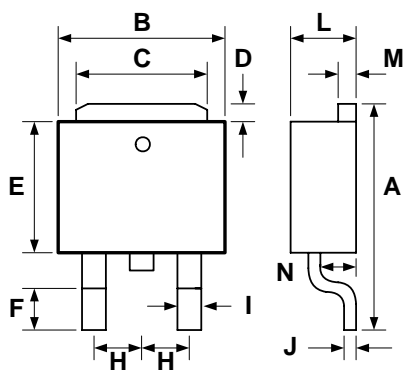


Figure 5. Typical Junction Capacitance

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T0-252



DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.380	.400	9.65	10.15	
B	.250	.266	6.35	6.75	
C	.201	.217	5.10	5.50	
D	.033	.053	0.85	1.35	
E	.228	.248	5.80	6.30	
F	.049	.065	1.25	1.65	
H	.085	.096	2.15	2.45	
I	.030	.041	0.75	1.05	
J	.016	.024	0.40	0.60	
L	.083	.098	2.10	2.50	
M	.018	.026	0.45	0.65	
N	.031	.051	0.80	1.30	

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