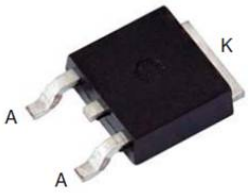
GOOD-ARK
SEMICONDUCTOR

MURD560

Ultrafast Recovery Planar Diode
Reverse Voltage 600 Volts Forward Current 5 Amperes

Features

- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



TO-252 (D-PAK)

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams(approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube

Schematic Diagram

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Working Peak Reverse Voltage		V_{RWM}	600	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Maximum Vverage Forward Rectified Current at T_C=105°C Total Device per Diode		I_F(AV)	5	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load per Diode		I_{FSM}	90	A
Voltage Rate of Change(rated V_R)		Dv/dt	10000	V/us
Operating Junction Temperature Range		T_J	-55 to+150	°C
Storage Temperature Range		T_{STG}	-55 to+150	°C
Maximum Reverse Recover Time (If=0.5Amp, IR=1.0Amp,Irec=0.25Amp)		Trr	50	ns
Maximum Instantaneous Forward Voltage per Leg	I_F=5A T_C=25℃ I_F=5A T_C=125℃	V_F	1.60 1.50	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	T_J=25℃ T_J=100°C	I_R	10 500	uA uA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Case per Leg	$R_{\theta JC}$	3.5	°C /W
Thermal Resistance, Junction to Ambient per Leg	$R_{\theta JA}$	62.5	°C /W

Note: Pulse test:300us pulse width, duty cycle=2%

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Typical Characteristics Curves

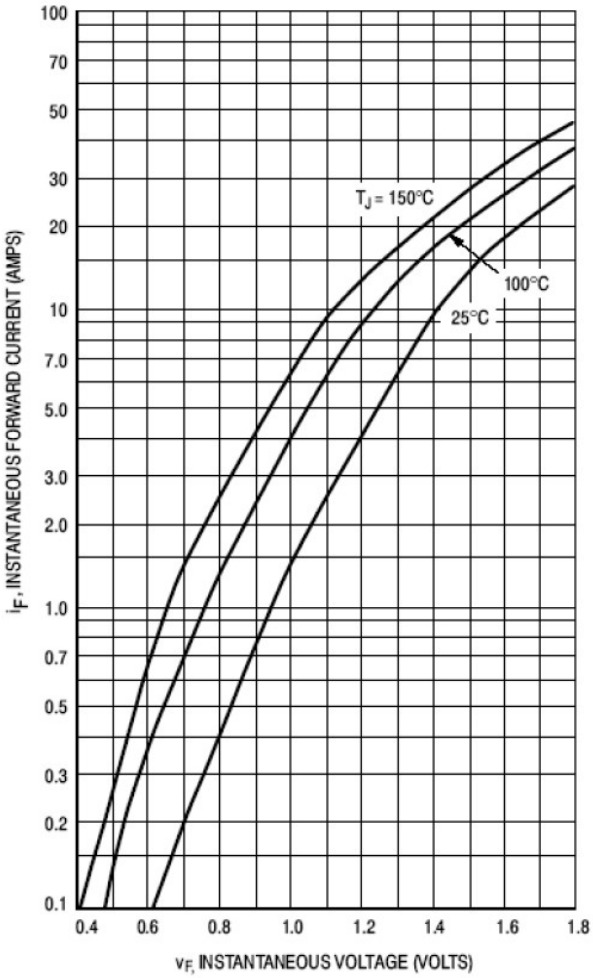

Figure 11. Typical Forward Voltage, Per Leg

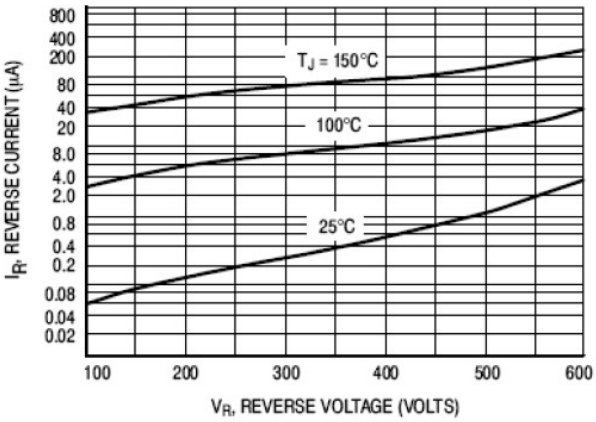

Figure 12. Typical Reverse Current, Per Leg*

* The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R.

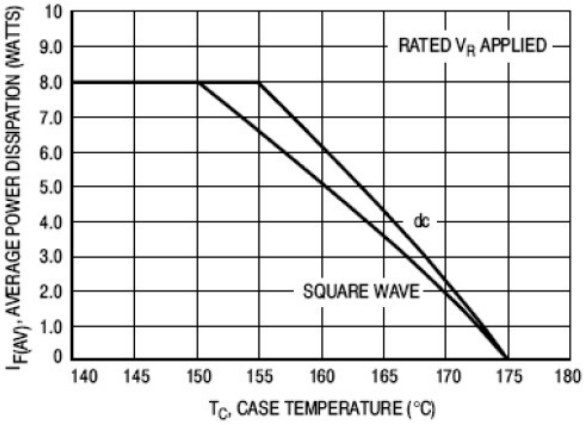

Figure 13. Current Derating, Case, Per Leg

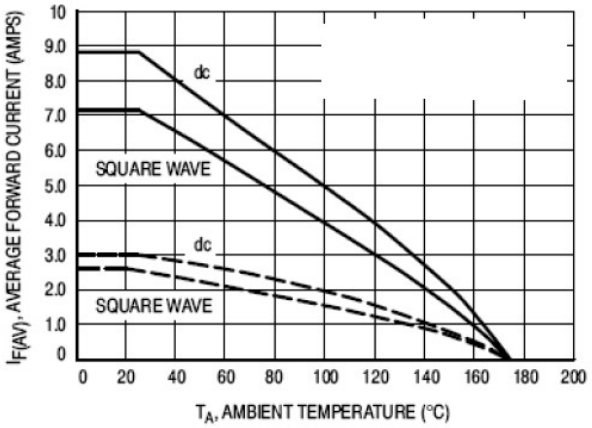

Figure 14. Current Derating, Ambient, Per Leg

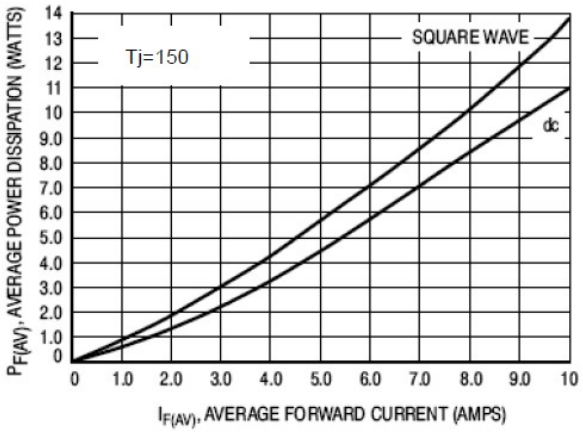

Figure 15. Power Dissipation, Per Leg

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Package Outline Dimensions TO-252 (D-PAK)