

# Features

- Halogen Free. "Green" Device (Note1)
- Lead Free Finish/RoHS Compliant (Note2) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Switching Losses and High Efficiency
- Low Reverse Leakage
- Ultrafast Recovery Time
- Planar Structure Die and Soft Recovery Characteristics

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 3°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURSD520A	MURSD520A	200V	140V	200V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Rectified Forward Current	I <sub>F(AV)</sub>	5.0A	T <sub>C</sub> = 135°C
Peak Forward Surge Current	I <sub>FSM</sub>	70A	8.3ms,Half Sine
Instantaneous Forward Voltage	V <sub>F</sub>	0.90V(Typ) 1.0V(Max) 0.85V(Max)	I <sub>F</sub> =5A; T <sub>J</sub> =25⁰C I <sub>F</sub> =5A; T <sub>J</sub> =25⁰C I <sub>F</sub> =5A; T <sub>J</sub> =125⁰C
Maximum Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 50μΑ	Tյ=25⁰C; Tյ=125⁰C
Maximum Reverse Recovery Time	t <sub>rr</sub>	35ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; I <sub>RR</sub> =0.25A
Typical Junction Capacitance	CJ	40pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

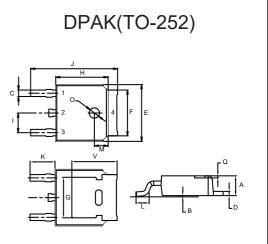
2. High temperature solder exemption applied, see EU directive annex 7a.

#### Internal Structure

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# 5 Amp FRED Rectifiers 200 Volts



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
А	0.087	0.094	2.20	2.40		
В	0.000	0.005	0.00	0.13		
С	0.026	0.034	0.66	0.86		
D	0.018	0.023	0.46	0.58		
Е	0.256	0.264	6.50	6.70		
F	0.201	0.215	5.10	5.46		
G	0.1	90	4.8	83		
Н	0.236	0.244	6.00	6.20		
Ι	0.086	0.094	2.18	2.39		
J	0.386	0.409	9.80	10.40		
K	0.1	14	2.9	90		
L	0.055	0.067	1.40	1.70		
Μ	0.0	63	1.0	60		
0	0.043	0.051	1.10	1.30		
Q	0.000	0.012	0.00	0.30		
V	0.2	11	5.3	35		



# **Curve Characteristics**

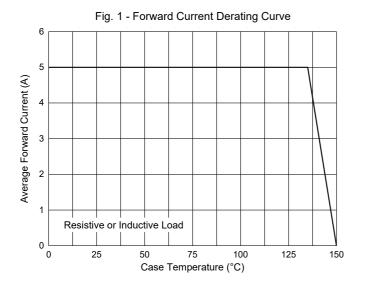
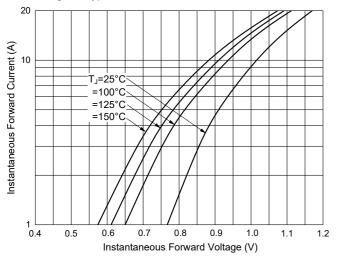
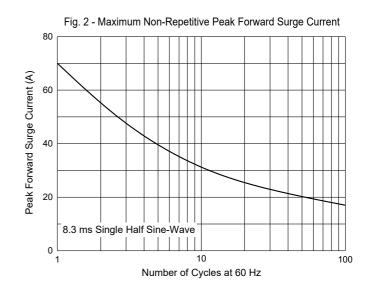
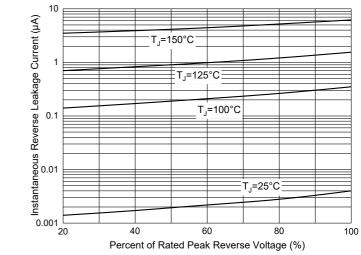


Fig. 3 - Typical Instantaneous Forward Characteristics











## **Ordering Information**

Device	Packing		
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel		

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