



VOLTAGE RANGE: 200 V
CURRENT: 1.0 A

Features

- ✧ Low cost
- ✧ Low leakage
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easily cleaned with Alcohol, Isopropanol and similar solvents
- ✧ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ✧ Case: JEDEC DO-214AA, molded plastic
- ✧ Polarity: Color band denotes cathode
- ✧ Weight: 0.003 ounces, 0.093 gram
- ✧ Mounting position: Any

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		MURS120A	UNITS
Device marking code		MURS120	
Maximum recurrent peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forward rectified current @ $T_L=155^\circ\text{C}$ @ $T_L=145^\circ\text{C}$	$I_{F(AV)}$	1.0 2.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	40.0	A
Typical reverse recovery time (Note1)	t_{rr}	25	ns
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=150^\circ\text{C}$	I_R	2.0 50.0	μA
Maximum instantaneous forward voltage at 1.0 A @ $T_J=25^\circ\text{C}$ @ $T_J=150^\circ\text{C}$	V_F	0.875 0.71	V
Typical thermal resistance (Note2)	$R_{\theta JL}$	13.0	$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 65 ---- + 175	$^\circ\text{C}$
Storage temperature range	T_{STG}	- 65 ---- + 175	$^\circ\text{C}$

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

2. Junction to ambient., $T_L=25^\circ\text{C}$.

Ratings AND Characteristic Curves

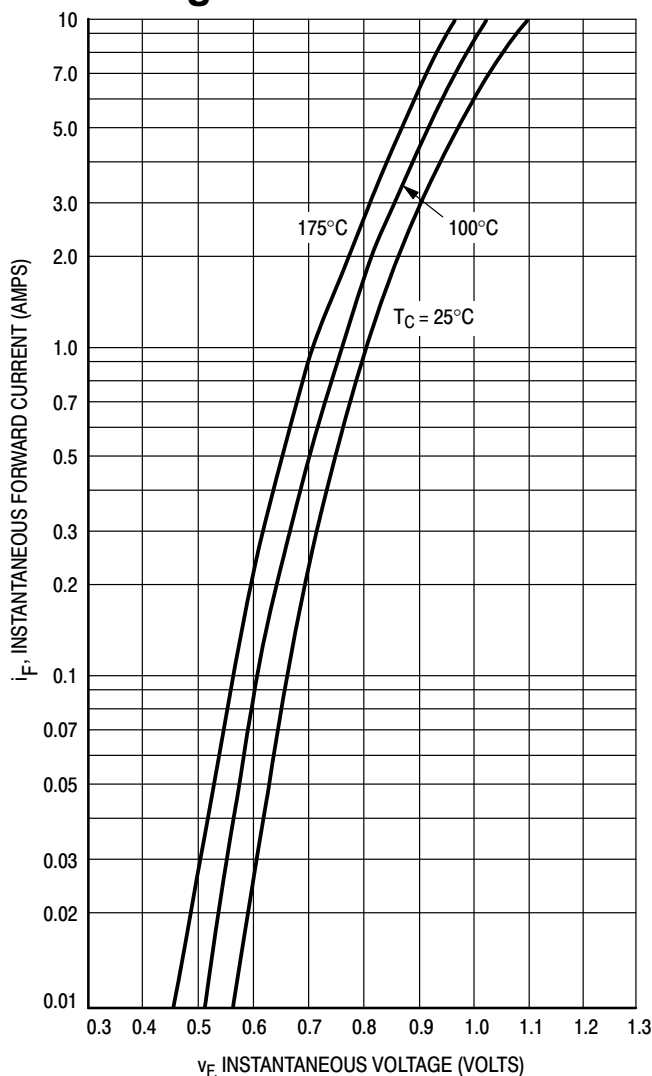


Figure 1. Typical Forward Voltage

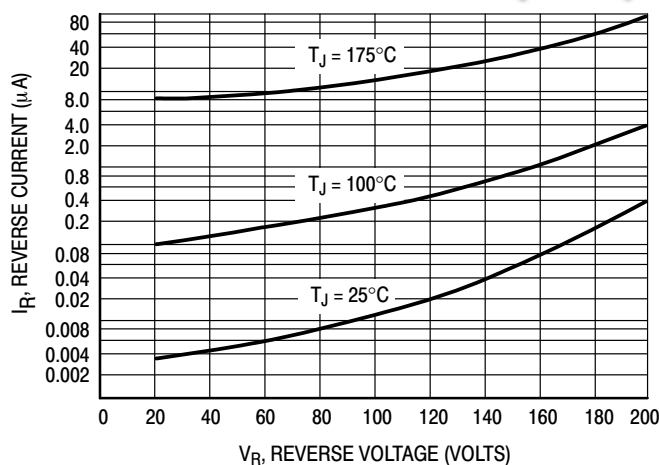


Figure 2. Typical Reverse Current*

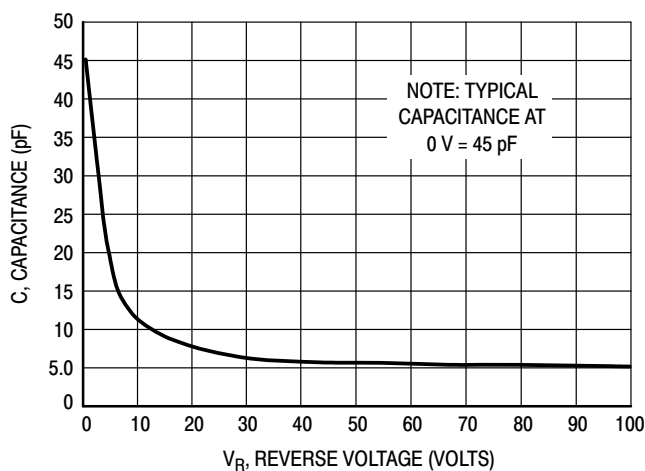


Figure 3. Typical Capacitance

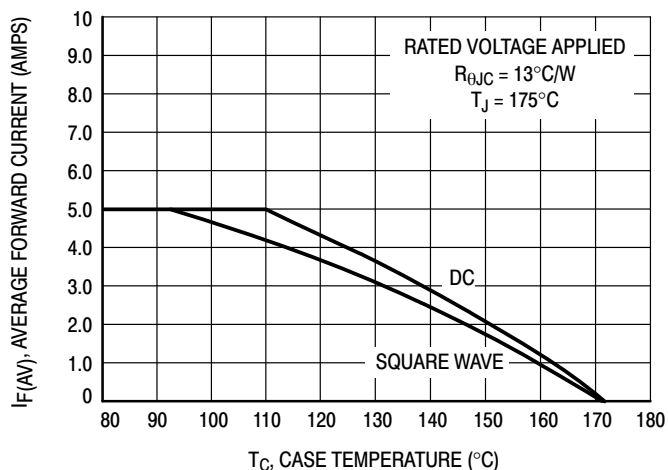


Figure 4. Current Derating, Case

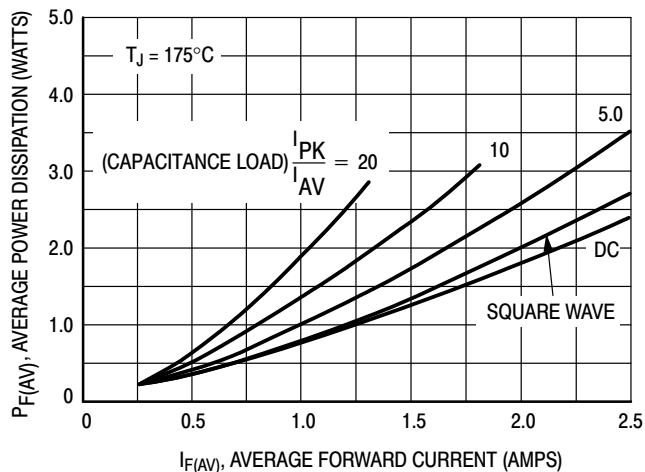


Figure 5. Power Dissipation

Ratings AND Characteristic Curves

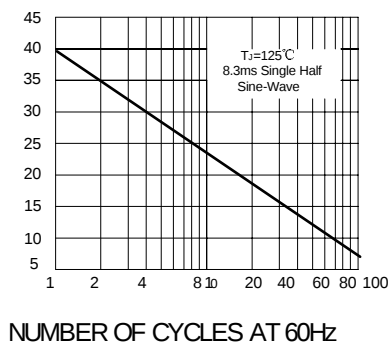


Figure 6. Peak Forward Surge Current

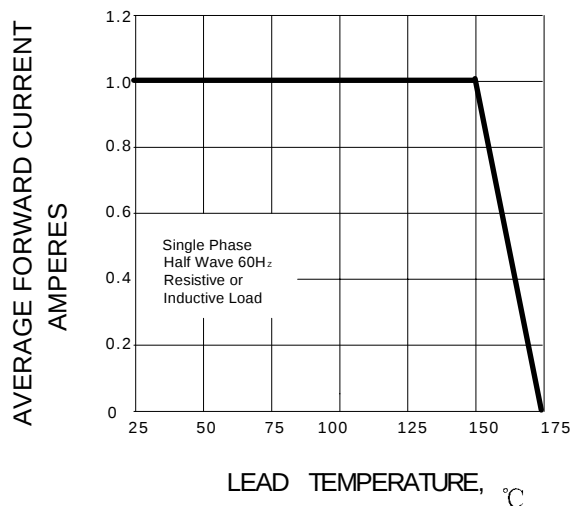


Figure 7. Forward Derating Curve

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00