

Ultra-Fast Recovery Diodes

Features

- ◆ High frequency operation.
- ◆ High surge forward current capability
- ◆ High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- ◆ Guard ring for enhanced ruggedness and long term reliability
- ◆ Low forward Voltage drop

TO-247-3L



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symble	MURW6040DCT	MURW6060DCT	MURW60120DCT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	1200	V
Maximum RMS voltage	V_{RMS}	280	420	840	V
Maximum DC Blocking Voltage	V_{DC}	400	600	1200	V
Maximum Average Forward Rectified Current Per leg Per device	$I_{F(AV)}$	30 60			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	300			A
Max Instantaneous Forward Voltage at 30 A (Per leg)	V_F	1.4	1.7	2.4	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$	I_R	10 500			uA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	4			°C/W
Operating Junction Temperature Range	T_j	-55 ~ +175			°C
Storage Temperature Range	T_{stg}	-55 ~ +175			°C

NOTE 1: Reverse recovery test conditions $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

Ratings And Characteristic Curves

Fig.1 Forward Current Derating Curve

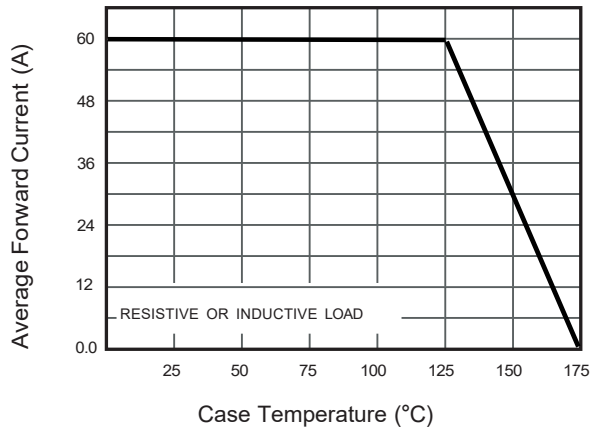


Fig.2 Typical Instantaneous Reverse Characteristics

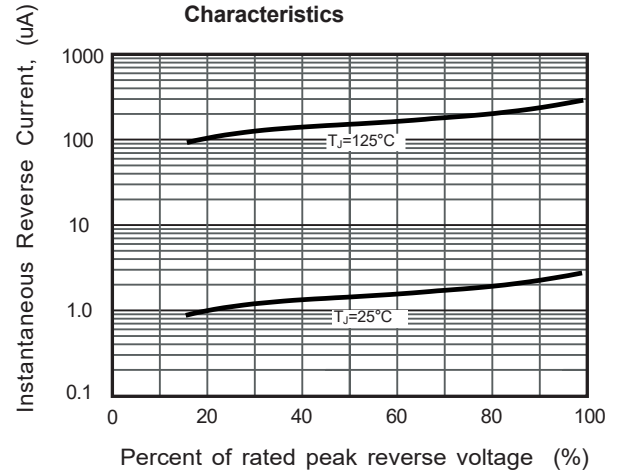


Fig.3 Typical Forward Characteristic

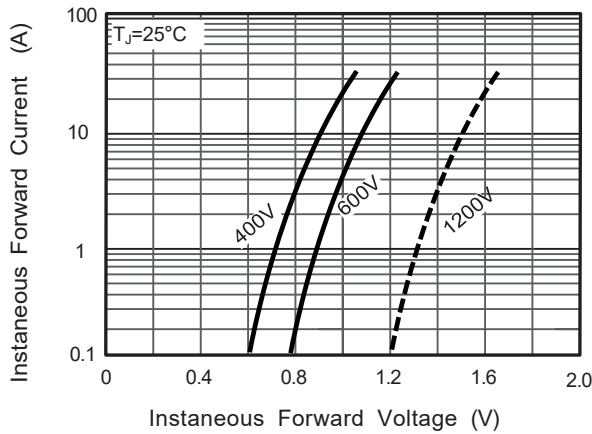
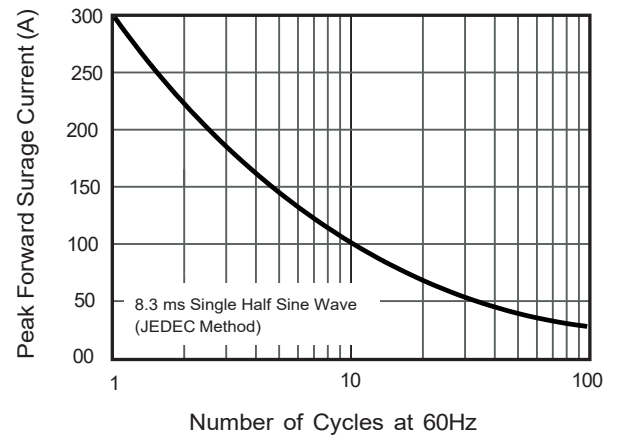


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.