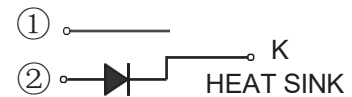


Ultra-Fast Recovery Diodes

Features

- ◆ High frequency operation.

TO-263(D²PAK)



Method

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symble	MURB820S	MURB820S	MURB820S	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	8			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	100			A
Max Instantaneous Forward Voltage at 8 A	V_F	1.0	1.3	1.6	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			μA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	4			$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	$-55 \sim +175$			$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim +175$			$^\circ\text{C}$

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

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

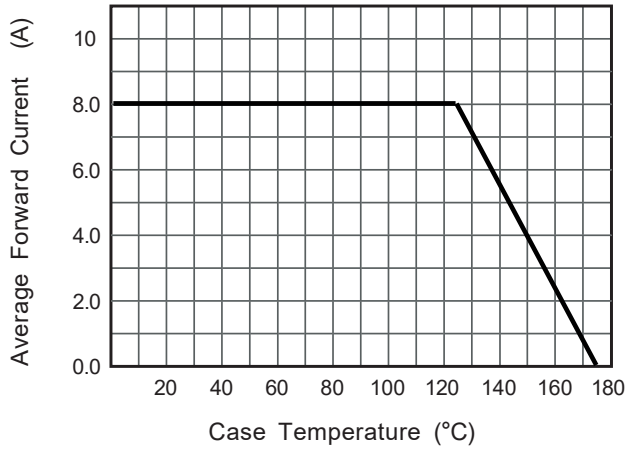


Fig.2 Typical Reverse Characteristics

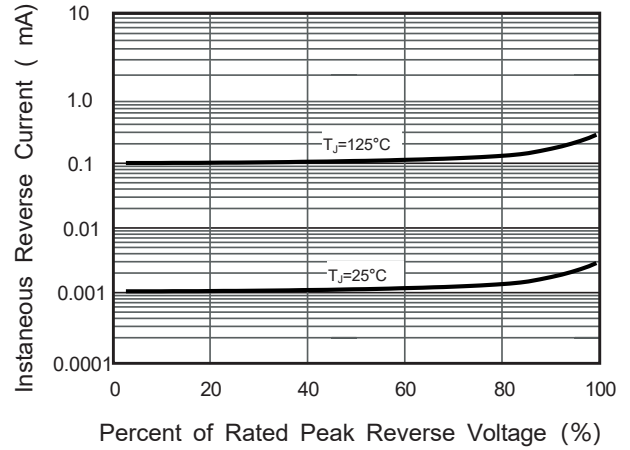


Fig.3 Typical Forward Characteristic

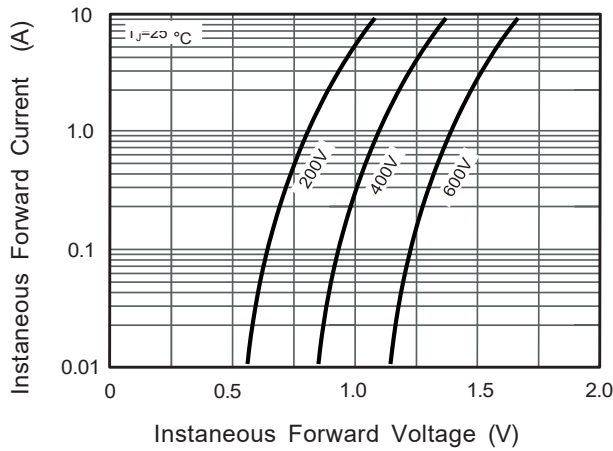
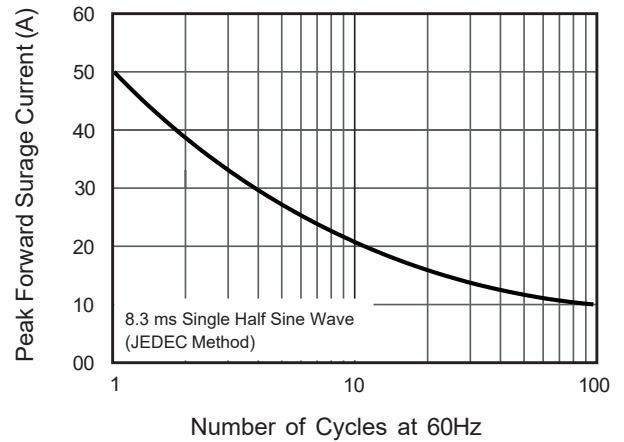


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.