

TO-252 ULTRAFAST RECOVERY RECTIFIERS 特快恢复整流二极管

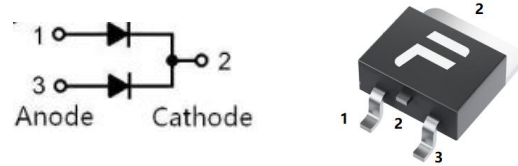
■ **Features 特点**

High speed switching capability 高速开关能力

High surge current capability 高浪涌电流能力

Low forward voltage drop 低正向压降

Case 封装:TO-252



■ **Maximum Rating 最大额定值**

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	MURD2040CT	Unit 单位
Peak Reverse Voltage 反向峰值电压	V_{RRM}	400	V
DC Reverse Voltage 直流反向电压	V_R	400	V
Work Reverse Voltage 反向工作电压	V_{RWM}	400	V
Forward Rectified Current 正向整流电流	I_F	20(Total) 10(Per Diode)	A
Peak Surge Current 峰值浪涌电流	I_{FSM}	175	A
Thermal Resistance J-C 结到管壳热阻	$R_{\theta JC}$	6.5	$^{\circ}\text{C}/\text{W}$
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	80	$^{\circ}\text{C}/\text{W}$
Junction Temperature 结温	T_J	150	$^{\circ}\text{C}$
Storage Temperature 储藏温度	T_{stg}	-40to+150 $^{\circ}\text{C}$	$^{\circ}\text{C}$

■ **Electrical Characteristics 电特性**

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F			1.3	V	$I_F=10\text{A}$
Diode Capacitance 结电容	C_J		35		pF	$V_R=4\text{V}, f=1\text{MHz}$
Reverse Current 反向电流	$I_R(25^{\circ}\text{C})$ (125°C)			10 500	μA	$V_R=V_{RRM}$
Reverse Time 反向恢复时间	T_{rr}		35		nS	$I_F=0.5\text{A}, I_R=1\text{A}$

■ Typical Characteristic Curve 典型特性曲线

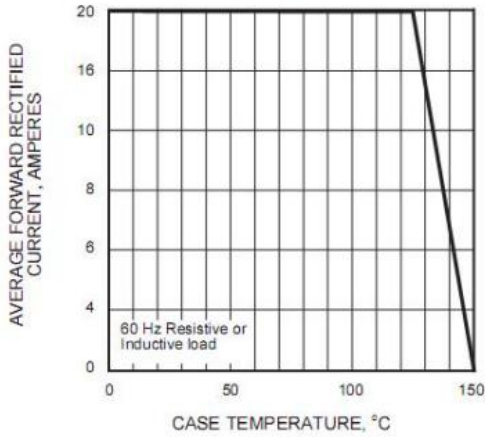


Figure 1. Forward Current Derating

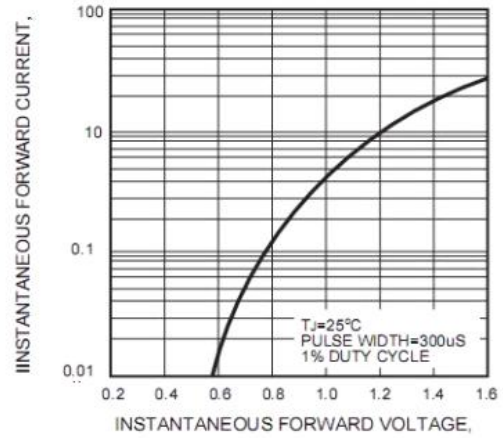


Figure 2. Typical Forward Characteristics

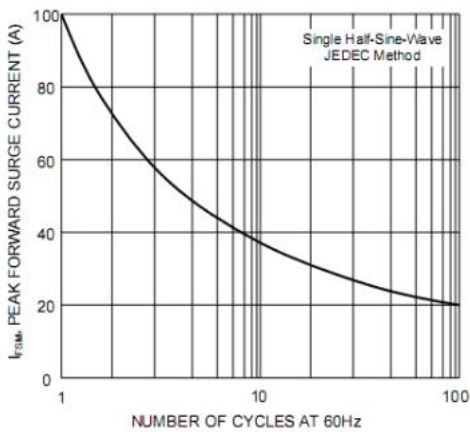


Figure 3. Forward Surge Current Derating

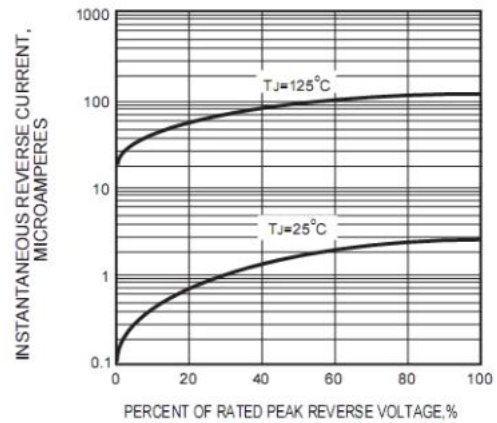


Figure 4. Typical Reverse Characteristics

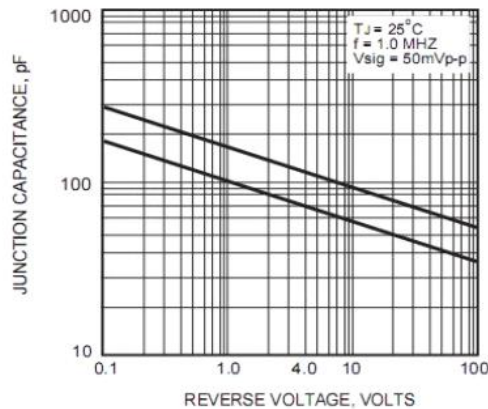


Figure 5. Typical Junction Capacitance

■Dimension 外形封装尺寸

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.094
A1	1.00	1.40	0.039	0.055
A2	0.00	0.15	0.000	0.006
B	1.30	1.70	0.051	0.067
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.30	6.70	0.248	0.264
D1	5.10	5.50	0.201	0.217
E	5.30	6.00	0.209	0.236
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	9.60	10.40	0.378	0.409
L1	0.60	1.00	0.024	0.039
L2	1.40	1.70	0.055	0.063