

**Super Fast Recovery Rectifiers**

**Reverse Voltage - 50 to 600 V**

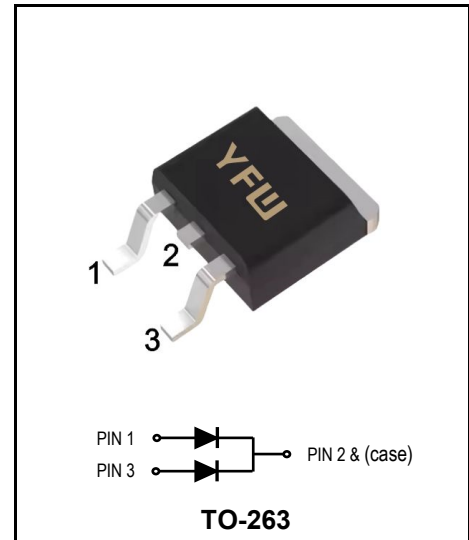
**Forward Current - 40A**

**FEATURES**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
260°C /10 seconds at terminals

**MECHANICAL DATA**

- ◆ Case: TO-263
- ◆ Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any



**Maximum Ratings And Electrical Characteristics**

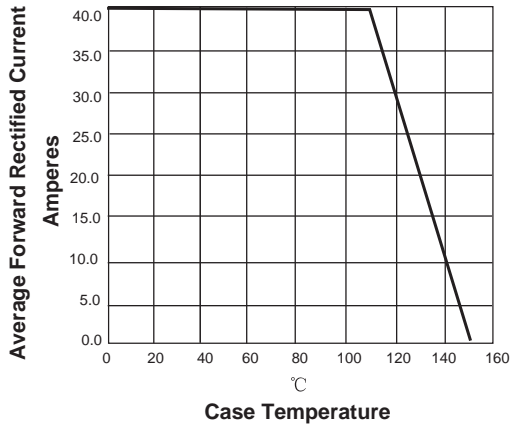
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbols	MUR4005D	MUR4010D	MUR4020D	MUR4040D	MUR4050D	MUR4060D	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	500	600	V
Maximum average forward rectified current at $T_C=110^\circ C$ per device per diode	$I_{(AV)}$	40.0 20.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	250.0						A
Maximum instantaneous forward voltage per diode at 20.0A	$V_F$	1.0		1.3		1.7		V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=125^\circ C$	$I_R$	10 500						$\mu A$
Maximum reverse recovery time	$t_{rr}$	35			50			ns
Typical thermal resistance	$R_{\theta JC}$	3.5						$^\circ C/W$
Operating junction temperature range	$T_J$	-55 to +150						$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150						$^\circ C$

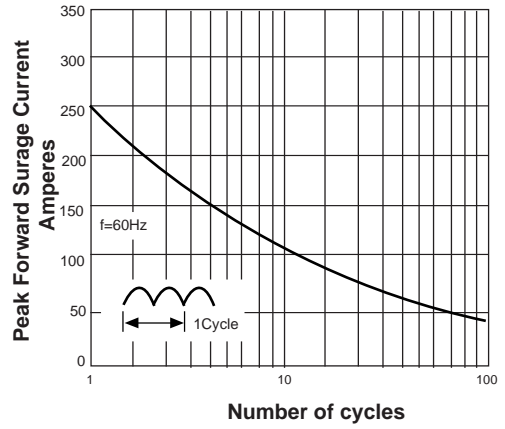
Note: 1.Reverse recovery time test condition:  $I_F=0.5A$   $I_R=1.0A$   $I_{rr}=0.25A$

**Ratings And Characteristic Curves**

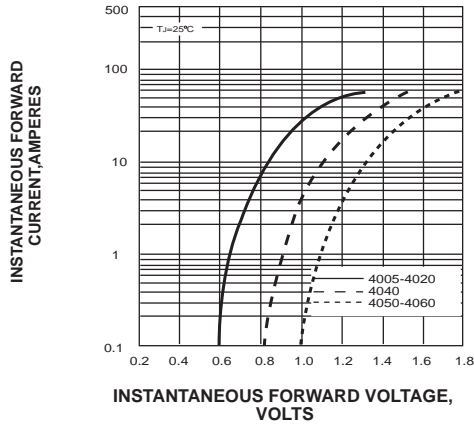
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



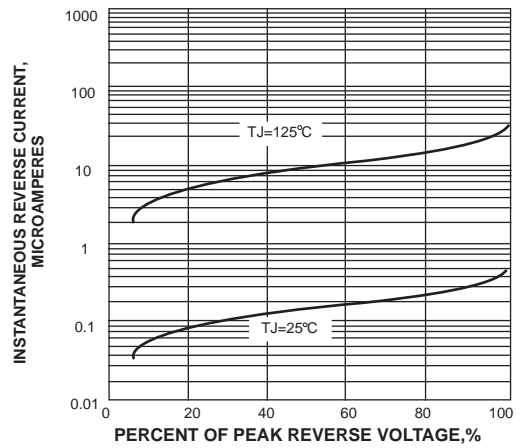
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**



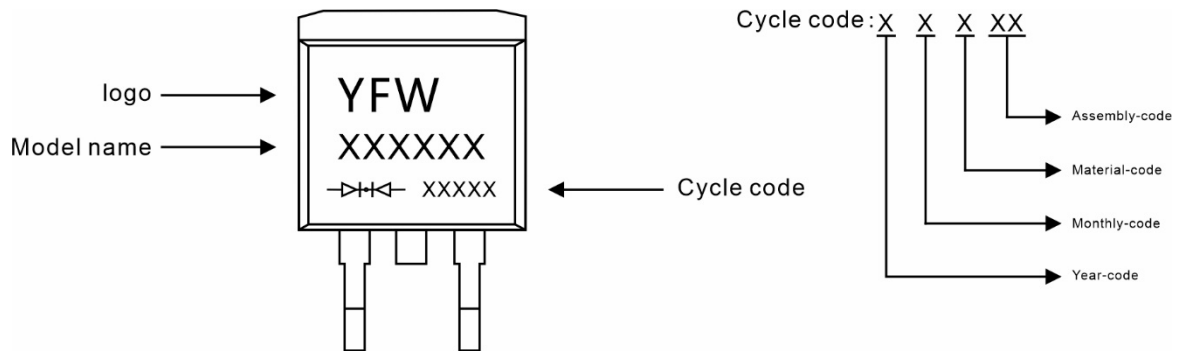
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Marking Diagram**



**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR40XX X	TO-263	0.04oz(1.16g)	800pcs/reel	1600pcs/box 8000pcs/Carton

**Package Dimensions**

**TO-263**

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.30	4.70	0.169	0.185
A1	0.00	0.15	0.000	0.006
A2	4.30	4.55	0.169	0.179
B	1.10	1.50	0.043	0.059
b	0.70	0.90	0.028	0.035
b1	1.20	1.50	0.047	0.059
c	0.30	0.60	0.012	0.024
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
L	15.00	15.30	0.591	0.602
L1	5.20	5.40	0.205	0.213
L2	2.40	2.60	0.094	0.102
L3	1.60	1.80	0.063	0.071

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