

Ultrafast Recovery Rectifiers

Parameter	Value	Unit
V_{RRM}	600	V
$I_{F(AV)}$	20	A

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$, unless otherwise noted)

Parameter	Symbol	MU2060	MUR2060F	MUR2060W	MUR2060DC	Unit
Maximum Repetitive reverse voltage	V_{RRM}	600				V
Maximum RMS voltage	V_{RMS}	420				V
Maximum DC blocking voltage	V_{DC}	600				V
Maximum average forward current	I_{AV}	20				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200				A
Typical thermal resistance per diode (Note 1)	$R_{\theta JC}$	2.0	4.5	2.5	2.5	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +150				$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150				$^\circ\text{C}$

Notes: 1. Thermal resistance from junction to case.

Electrical Characteristics unless otherwise specified

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Instantaneous forward voltage	V_F	$I_F=20\text{A}$ $T_J=25^\circ\text{C}$	-	1.8	2.1	V
		$I_F=20\text{A}$ $T_J=125^\circ\text{C}$	-	-	1.7	V
Reverse current per diode	I_R	$V_R=600\text{V}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	-	-	5500	μA
Reverse recovery time	T_{RR}	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $T_J=25^\circ\text{C}$ $I_{RR}=0.25\text{A}$	-	34	48	ns
		$I_F=1\text{A}$ $V_R=30\text{V}$ $di/dt=200\text{A}/\mu\text{s}$ $T_J=25^\circ\text{C}$	-	32	-	

Typical Characteristics

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

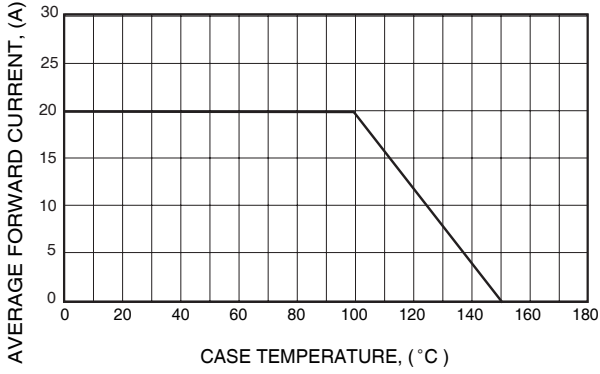


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

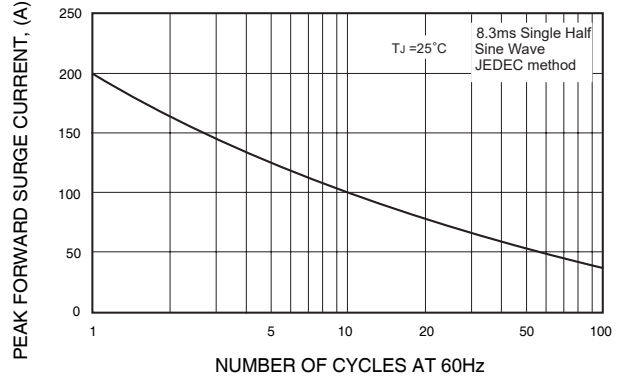


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

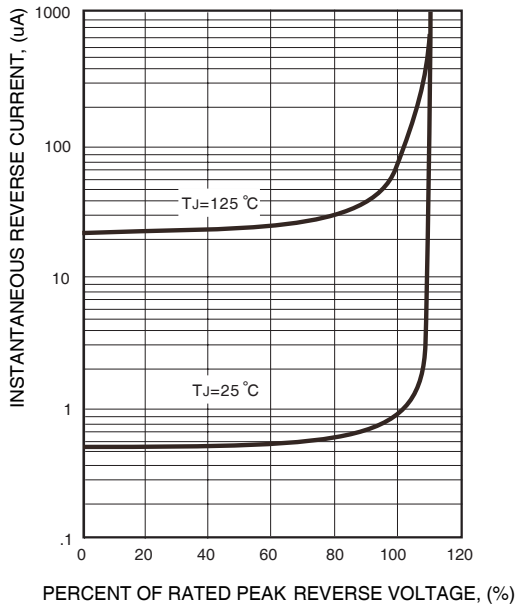
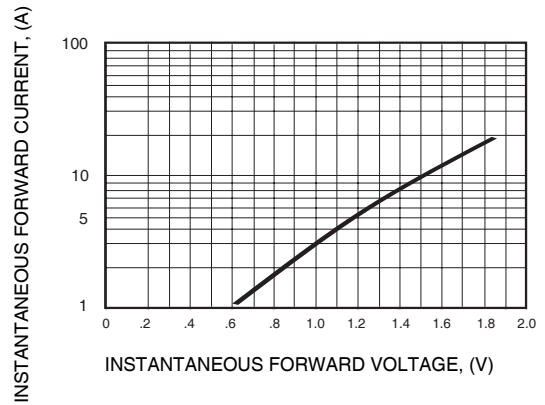
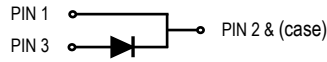


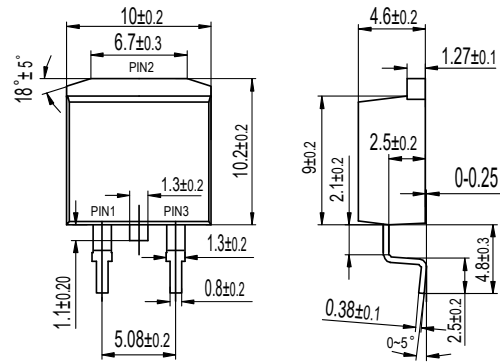
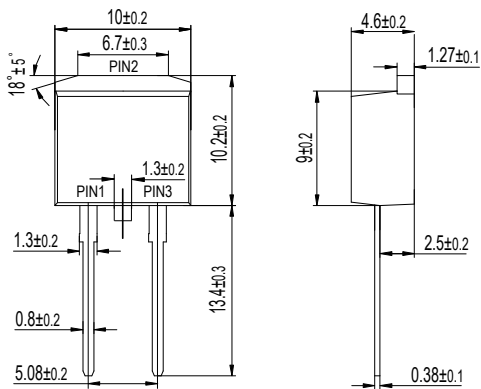
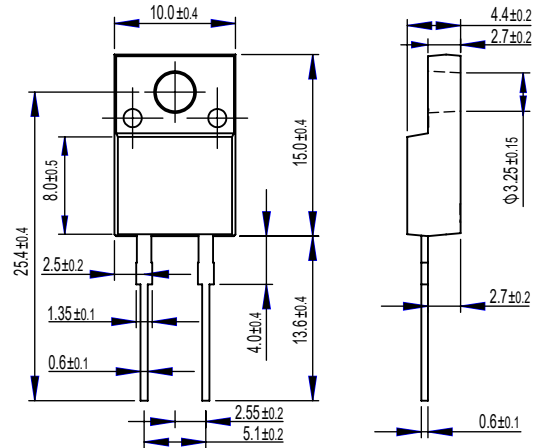
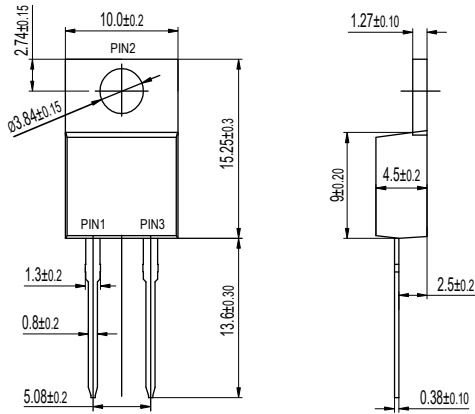
FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Package Outlines



Dimensions in millimeters



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