

MURS120 THRU MURS160

SURFACE MOUNT ULTRAFAST RECTIFIER

Reverse Voltage: 200 to 600 Volts

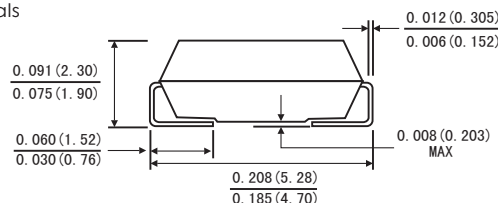
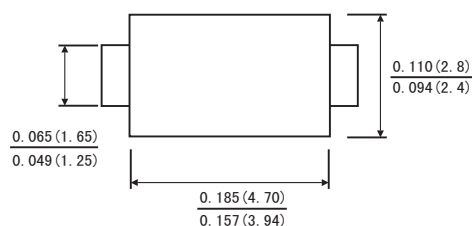
Forward Current: 1.0 Amperes

FEATURES

- Glass passivated
- Ideal for surface mount automotive applications
- Ultrafast recovery time for high efficiency
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Lead (Pb)-free component
- Component in accordance to RoHS 2011/65/EU
- High temperature soldering guaranteed: 260°C/10 seconds at terminals



SMA(DO-214AC)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: solder plated, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified, Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

	Symbols	MURS120	MURS140	MURS160	Units
Maximum repetitive peak reverse voltage	V _{RRM}	200	400	600	Volts
Maximum RMS voltage	V _{RMS}	140	280	420	Volts
Maximum DC blocking voltage	V _{DC}	200	400	600	Volts
Maximum average forward rectified current (see Fig.1)	I(AV)	1.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			Amps
Maximum instantaneous forward voltage at 1.0 A (Note 1)	V _F	0.875	1.25		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	T _a = 25°C	5			μA
	T _a = 125°C	250			
Maximum Reverse Recovery Time (Note 2)	t _{rr}	25	50		ns
Typical thermal resistance (Note 3)	R _{θJA}	47			°C/W
Operating junction temperature range	T _J	-55 to +150			°C
Storage temperature range	T _{STG}	-55 to +150			°C

- Notes:**
1. Pulse test: 300 μs pulse width, 1% duty cycle
 2. Reverse recovery test conditions I_F=0.5A, I_R=1.0A, I_{rr}=0.5A
 3. Thermal resistance from junction to ambient

RATINGS AND CHARACTERISTIC CURVES MURS120 THRU MURS160

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

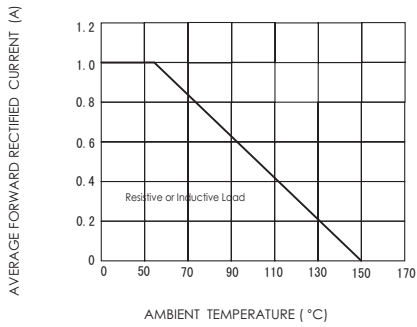


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

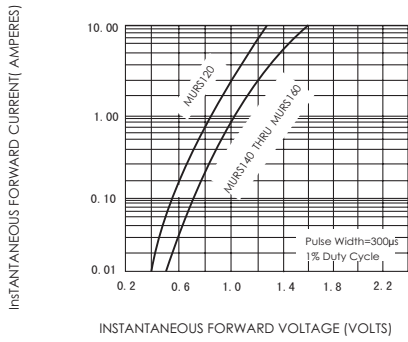


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

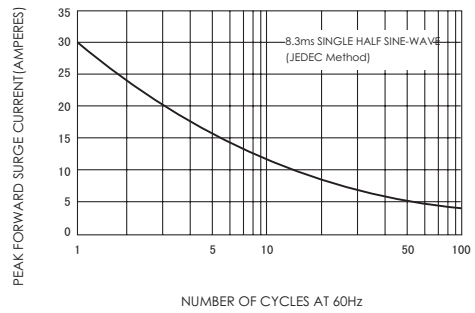


FIG.4-TYPICAL REVERSE CHARACTERISTICS

