勛昇科技股份有限公 司
Extensive Technology
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MURA105 thru MURA160

1.0A Surface Mount Efficient Fast Rectifiers - *50V-600V*

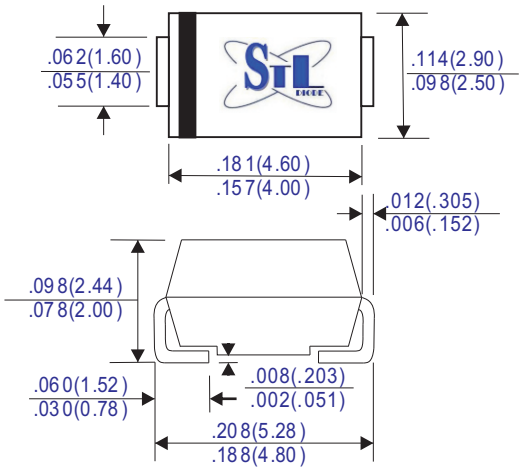
FEATURES

- Super low drop down voltage
- Ultrafast recovery time for high efficiency
- Low reverse leakage
- High surge current capability
- Glass passivated chip junction
- Low profile package for surface mounted applications
- Lead-free parts for green partner, meet RoHS requirements

MECHANICAL DATA

- Case: Molded plastic SMA/DO-214AC
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.002 ounces, 0.064 grams

SMA (DO-214AC)



Unit :inch(mm)

MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	MURA 105	MURA 110	MURA 120	MURA 140	MURA 160	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current See Figure 1	$I_{(AV)}$	1.0					Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method) T_L=120°C	I_{FSM}	30.0					Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.875			1.1	1.25	Volts
Maximum DC Reverse Current T_A= 25°C at Rated DC Blocking Voltage T_A=125°C	I_R	5.0 100.0					μA
Typical Reverse Recovery Time (Note 1)	Trr	25			35	50	μS
Typical Junction Capacitance (Note 2)	C_J	15					pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$ $R_{\theta JA}$	25 75					°C/W
Operating Junction Temperature Range	TJ	-55 ~ +150					°C
Storage Temperature Range	T_{STG}	-55 ~ + 150					°C

Note 1. Reverse recovery test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0Volts
3. Thermal resistance from junction to ambient and from junction to lead mounted on 0.2"x0.2" (5.0x5.0mm) copper and areas.

Rating and Characteristic Curves

MURA105 thru MURA160

Fig.1 - Forward Current Derating Curve

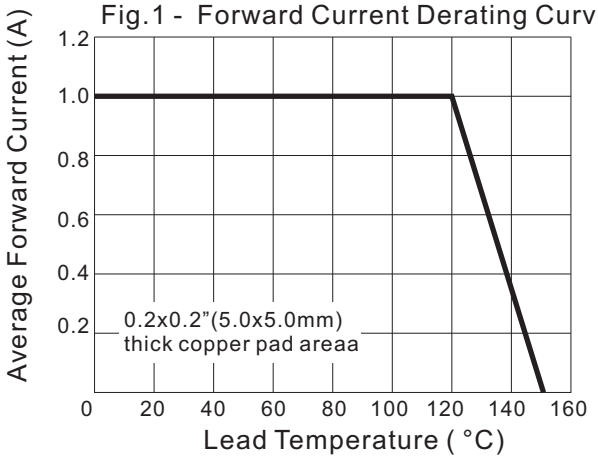


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

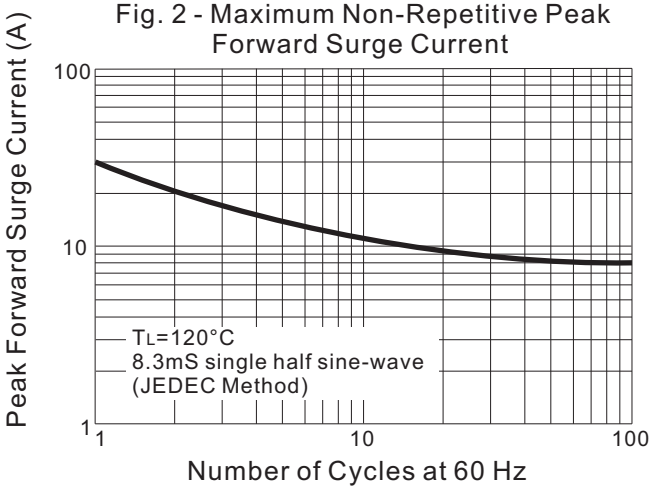


Fig. 3 - Typical Instantaneour Forward Characteristics

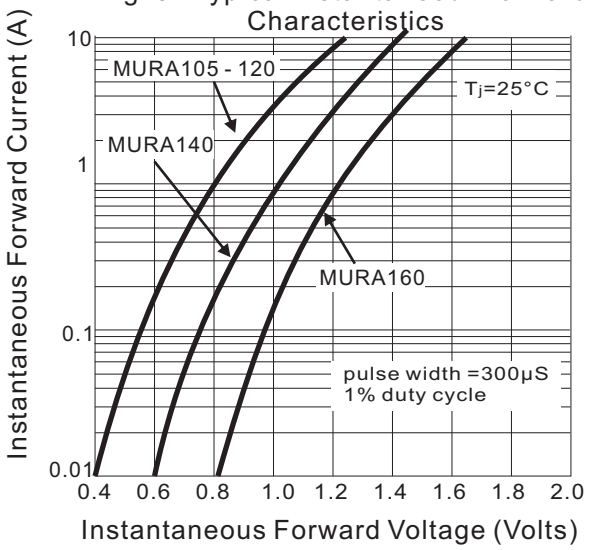


Fig. 4 - Typical Reverse Characteristics

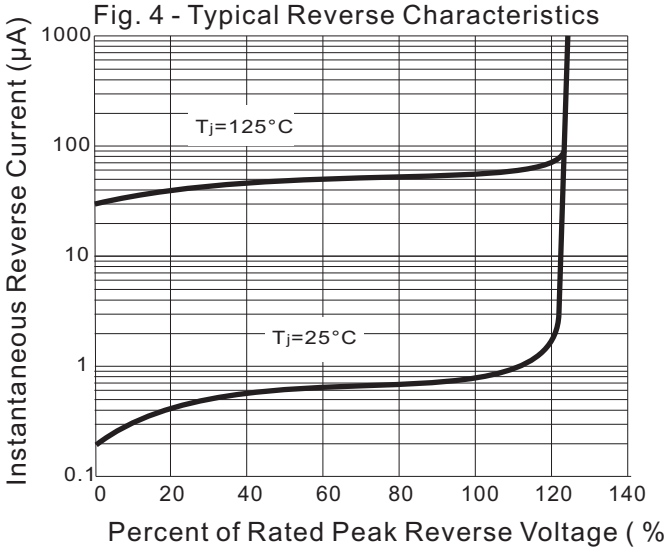


Fig. 5 - Typical Junction Capacitance

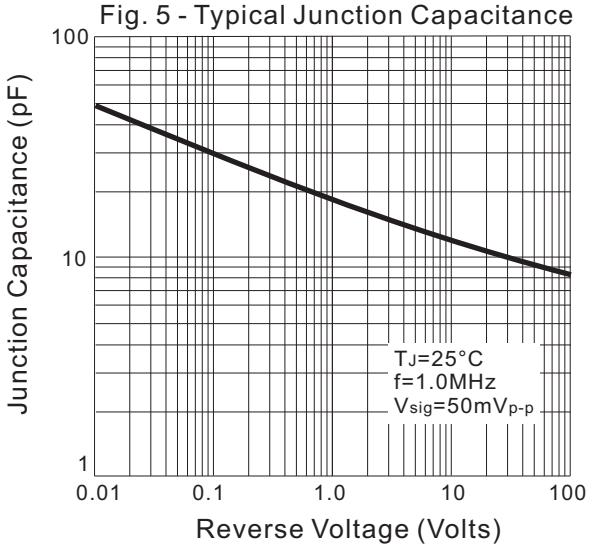
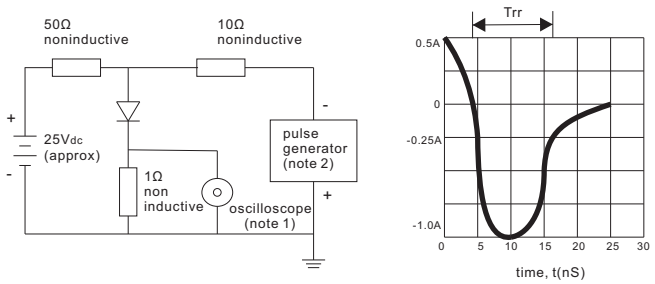


Fig. 6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



Note: 1. rise time=7nS Max. input impedance=1MHz 22pF
2. rise time=10nS Max. source impedance=80Ω