MURS105 THRU MURS160

ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

VOLTAGE:50 TO 600V **CURRENT: 1.0A**

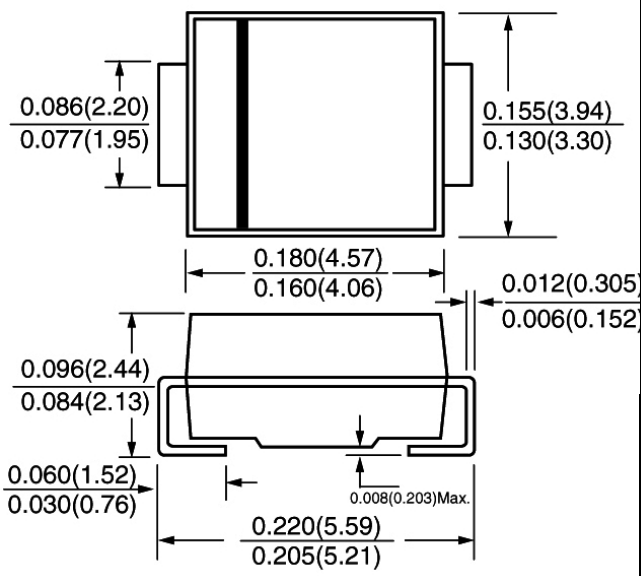
FEATURE

Ultrafast Nanosecond Recovery Times
150°C Operating Junction Temperature
Low Forward Voltage
Low Leakage Current
High Temperature Glass Passivated Junction

Mechanical Characteristics

Case: JEDEC SMB/DO-214AA molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mark: M105B M110B M120B M130B M140B M160B

SMB / DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	MURS 105	MURS 110	MURS 120	MURS 130	MURS 140	MURS 160	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	300	400	600	V
Maximum RMS Voltage	Vrms	35	70	140	210	280	420	V
Maximum DC blocking Voltage	Vdc	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current 3/8"lead length at TL =125°C	If(av)	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	40			35			A
Maximum Forward Voltage at rated Forward Current and 25°C	Vf	0.875			1.25			V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10 150						μA
Maximum Reverse Recovery Time (Note 1)	Trr	25			50			nS
Typical Junction Capacitance (Note 2)	Cj	25						pF
Typical Thermal Resistance (Note 3)	Rth(jl)	13						°C /W
Storage and Operating Temperature Range	Tstg, Tj	-55 to +150						°C

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC MURVES MURS105 THRU MURS160

Fig. 1 — Forward Current Derating Curve

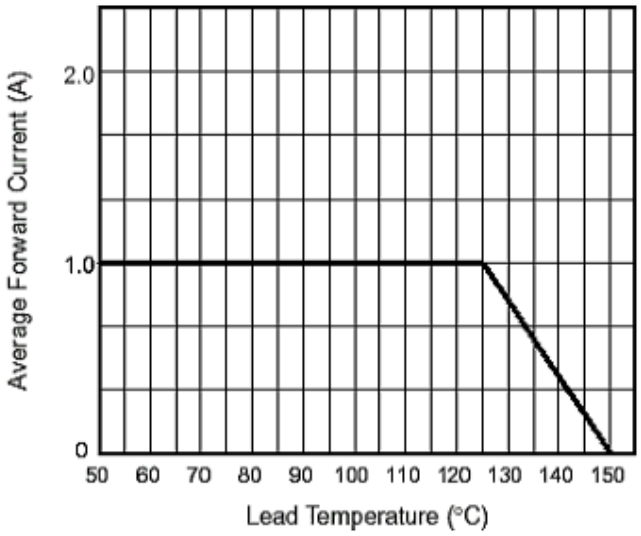


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

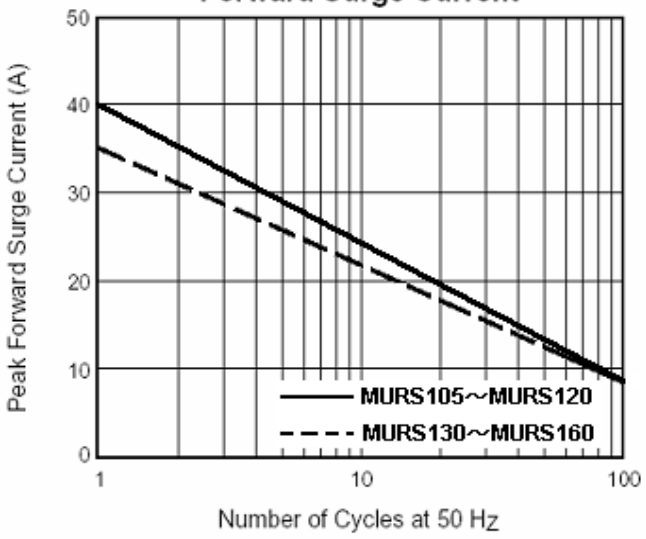


Fig. 3 – Typical Instantaneous Forward Characteristics

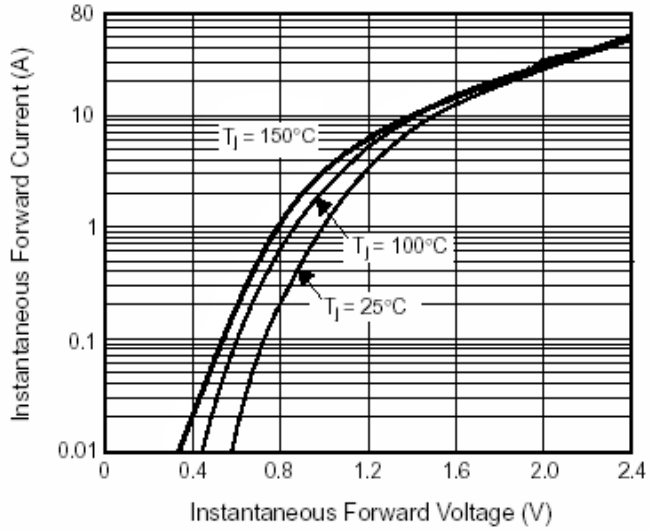


Fig. 4 – Typical Reverse Leakage Characteristics

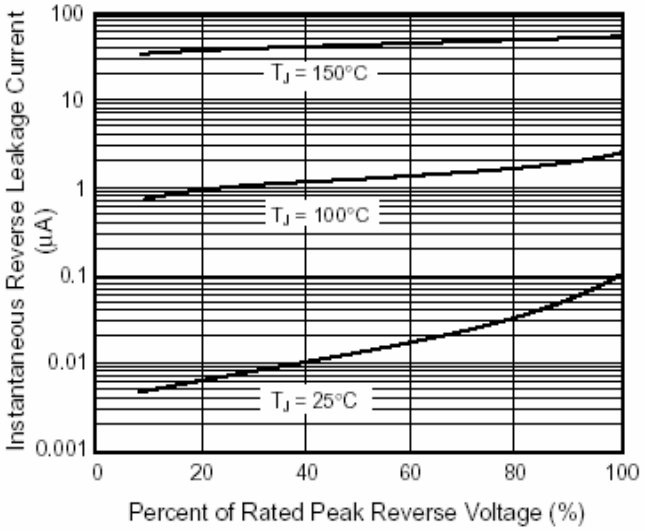


Fig. 5 – Typical Junction Capacitance