

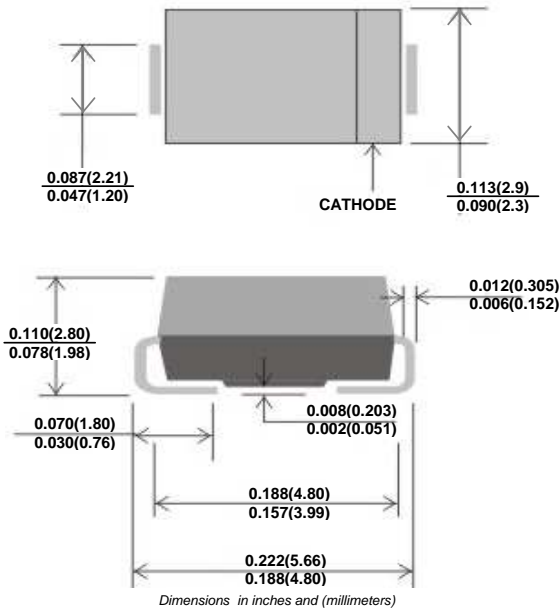


MURS105 THRU MURS160

SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 1.0 Ampere

DO-214AC



FEATURES

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Low power loss, high efficiency
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request
- ◆ High forward surge current capability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass Passivated Chip Junction

MECHANICAL DATA

Case: JEDEC DO-214AC, Molded plastic.

Terminals: Solderable per MIL-STD-750 Method 2026

Approx. Weight: 0.002 ounce, 0.07 grams

Polarity: Color band denotes cathode end

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%.

PARAMETER	SYMBOLS	MURS 105	MURS 110	MURS 115	MURS 120	MURS 140	MURS 160	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	280	420	Volts
Minimum Reverse Breakdown Voltage	V_R	50	100	150	200	400	600	Volts
Average Rectified current at $T_L = 75^\circ\text{C}$	$I_{(AV)}$	1.0						Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40				35		Amps
Maximum Forward Voltage at $I_F = 1.0\text{A}$	V_F	0.875				1.250		Volts
Reverse Leakage Current at V_{RRM}	I_R	2.0				5.0		μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	20				50		nS
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	50						$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +175						$^\circ\text{C}$

- Note:**
1. Reverse recovery condition $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Mounted with minimum recommended padsize PCBoard FR4.



MURS105 THRU MURS160

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

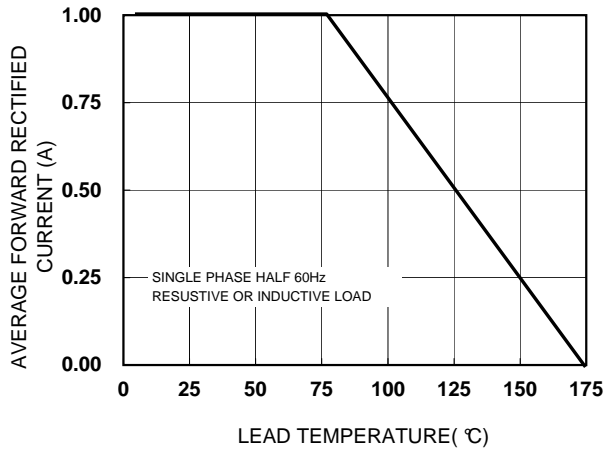


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

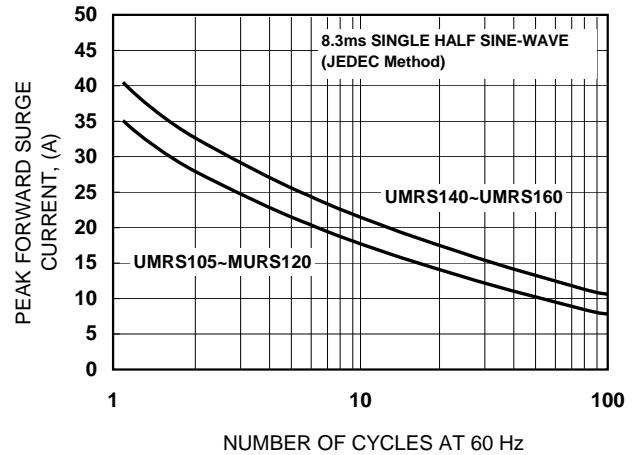


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

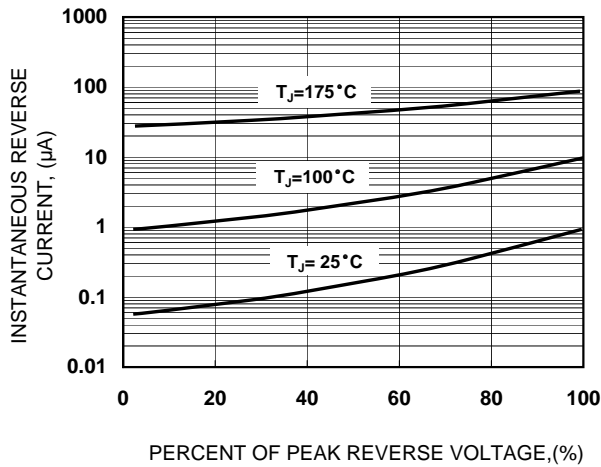


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

