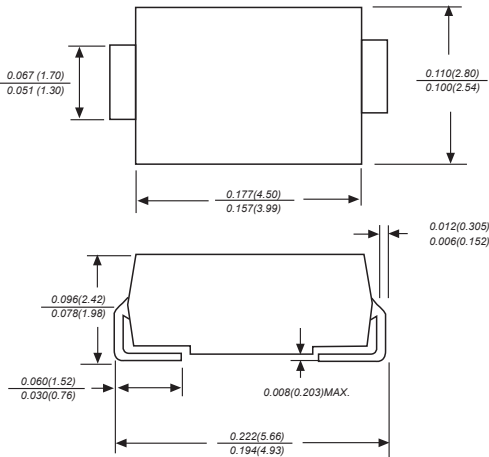


SURFACE MOUNT RECTIFIER

Reverse Voltage - 100 Volts Forward Current - 2.0 Amperes

DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.005 ounce, 0.138 grams

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%.

czgumeng type	SYMBOLS	10MQ100NTR	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	VOLTS
Maximum RMS voltage	V_{RMS}	70	VOLTS
Maximum DC blocking voltage	V_{DC}	100	VOLTS
Maximum average forward rectified current at T_L (see fig. 1)	$I_{(AV)}$	2.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	45.0	Amps
Maximum instantaneous forward voltage at 2.0A	V_F	0.85	Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.02 5.0	mA
Typical junction capacitance (NOTE 1)	C_J	180	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0	°C/W
Operating junction temperature range	T_J	-65 to +175	°C
Storage temperature range	T_{STG}	-65 to +175	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

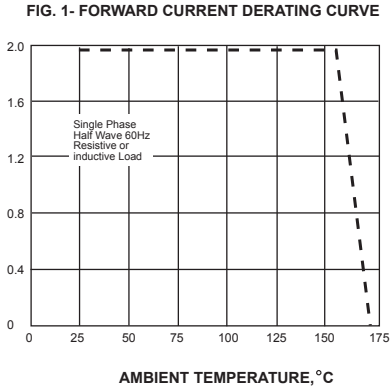
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

10MQ100NTR

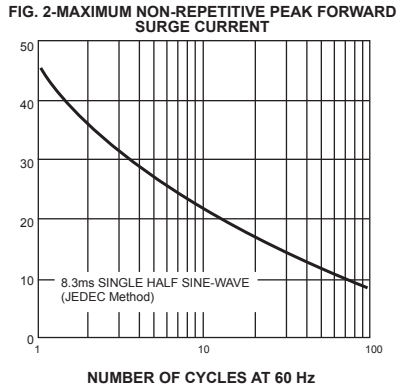


RATINGS AND CHARACTERISTIC CURVES

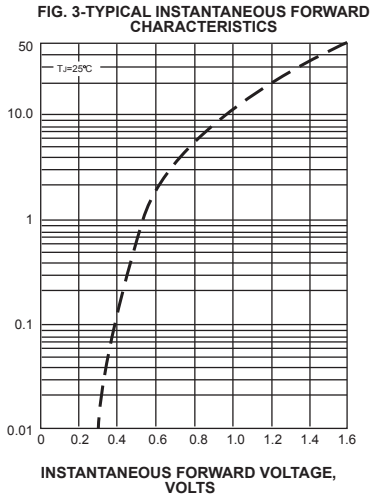
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



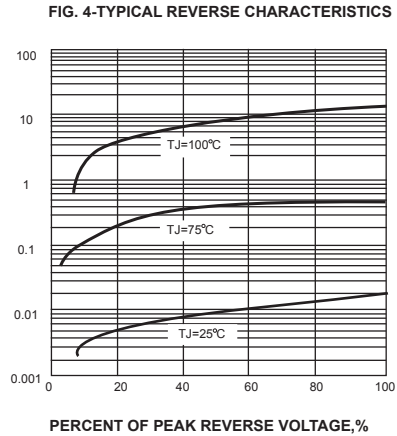
PEAK FORWARD SURGE CURRENT, AMPERES



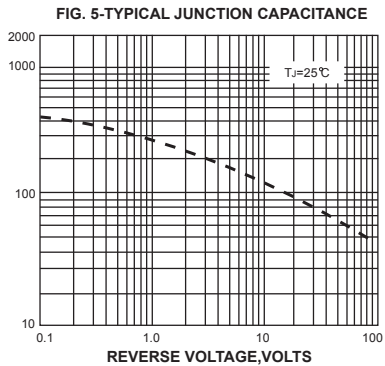
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

