

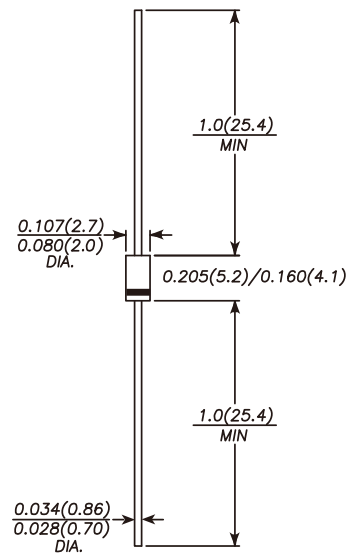
FEATURES

The plastic package carries Underwriters Laboratory
Flammability Classification 94V-0
High speed switching for high efficiency
Low reverse leakage
High forward surge current capability
High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750,
Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 ounce, 0.34 grams

DO-41



Dimensions in inches and (millimeters)

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%.

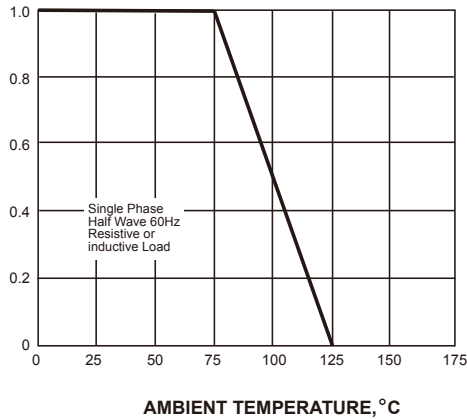
	SYMBOLS	FR 101	FR 102	FR 103	FR 104	FR 105	FR 106	FR 107	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375”(9.5mm) lead length at T _A =75°C	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	5.0 50.0							μA
Maximum reverse recovery time	t _{rr}	150				250	500		ns
Typical junction capacitance	C _J	15.0							pF
Typical thermal resistance	R _{θJA}	50.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +125							°C

Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



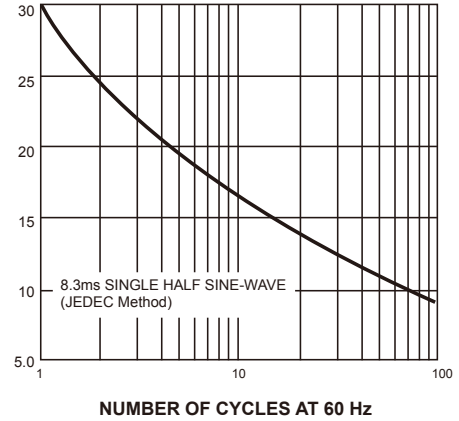
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



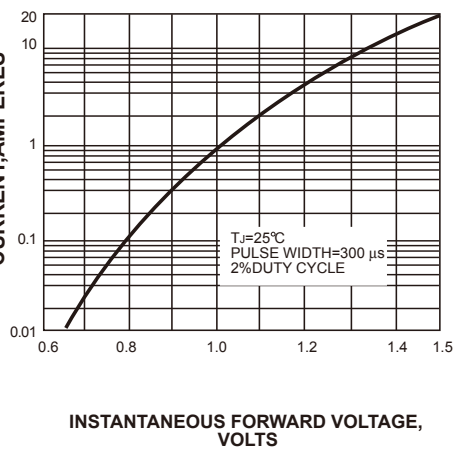
PEAK FORWARD SURGE CURRENT,
AMPERES

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



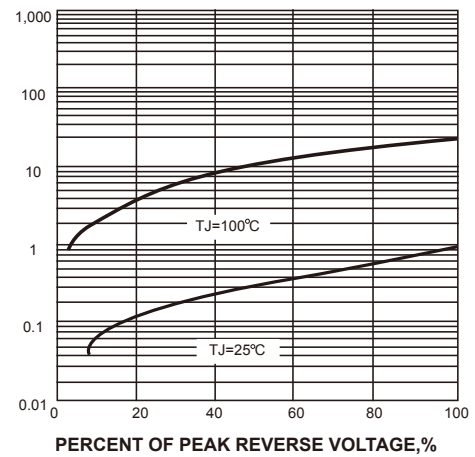
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



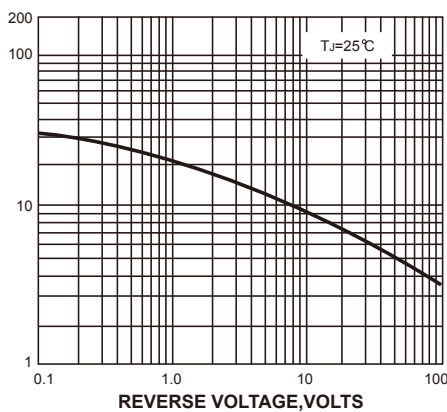
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^\circ\text{C/W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

