

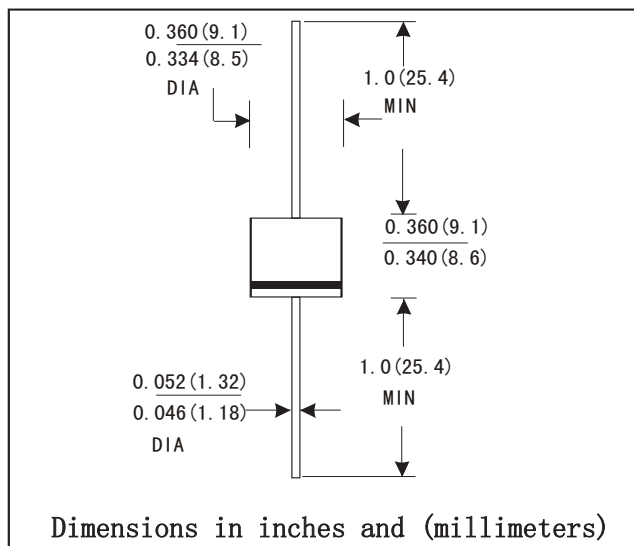
R-6 FAST RECOVERY RECTIFIERS

FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High reliability
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHs 2015/863 and WEEE 2012/19/EU

MECHANICAL DATA

- Case style: R-6 molded plastic
- Mounting position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

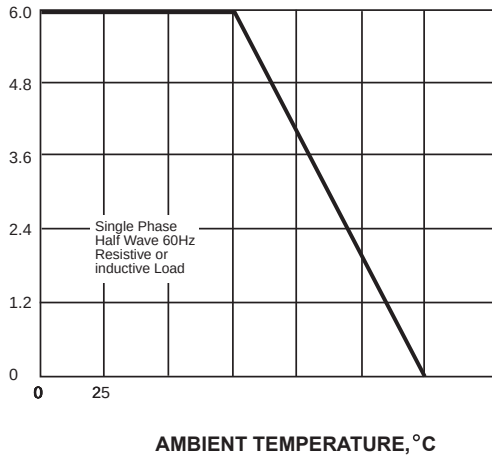
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbols	FR601	FR602	FR603	FR604	FR605	FR606	FR607	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =75°C	I _(AV)	6.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	180.0							Amps
Maximum instantaneous forward voltage at 6.0A	V _F	1.3							Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	10.0 200.0							μA
Maximum reverse recovery time	t _{rr}	150				250	500		ns
Typical junction capacitance	C _J	150.0							pF
Typical thermal resistance	R _{θJA}	10.0							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°C

RATINGS AND CHARACTERISTIC CURVES

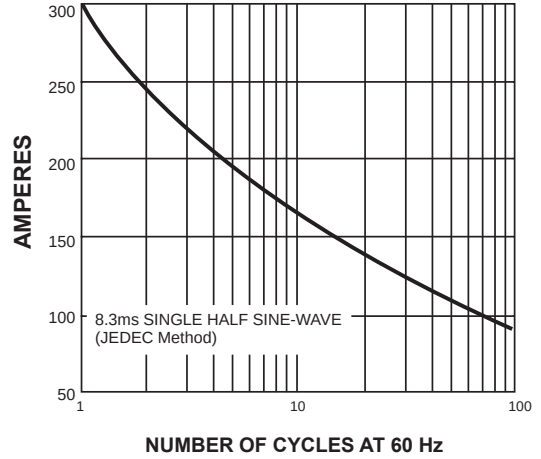
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



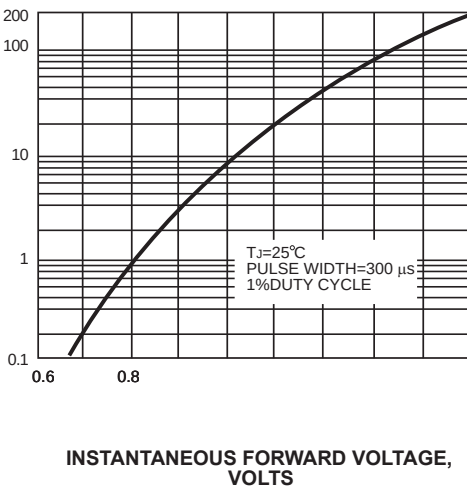
PEAK FORWARD SURGE CURRENT,
AMPERES

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



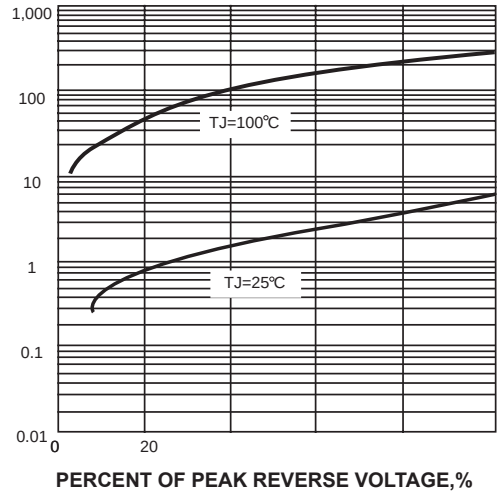
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



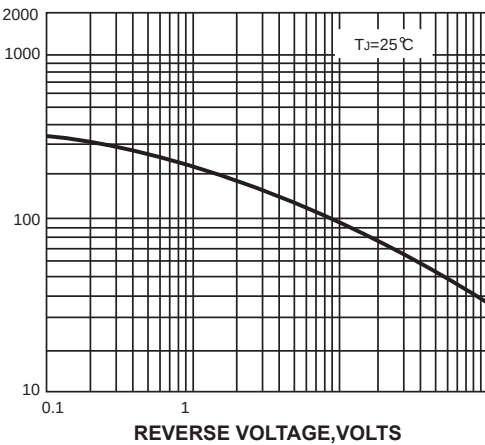
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

