

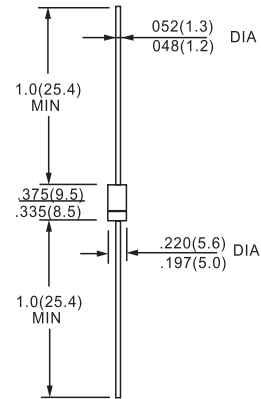
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability
- High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching
- Low leakage

Mechanical Data

Case : JEDEC DO-201AD molded plastic body
 Epoxy : UL94V-0 rate flame retardant
 Lead : Plated axial lead solderable per MIL-STD-750, method 2026
 Polarity : Color band denotes cathode end
 Mounting Position : Any
 Weight : 0.042 ounce, 1.19 gram

DO-27



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Units	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	Volt s	
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	Volt s	
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	Volt s	
Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	3.0									Amp s	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=55^\circ\text{C}$	I_{FSM}	150.0									Amp s	
Maximum instantaneous forward voltage at 3.0A (Note 2)	V_F	1.0			1.7						Volt s	
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=100^\circ\text{C}$	I_R	10					20.0					μA
Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_F=0.25\text{A}$ $T_J=25^\circ\text{C}$	t_{rr}	50				7.5						nS
Typical junction capacitance at 4.0V, 1MHz	C_J	45				3.6						pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta AL}$	20					8.5					$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150									$^\circ\text{C}$	
Storage temperature range	T_{STG}	-55 to +150									$^\circ\text{C}$	

Notes: 1. Thermal resistance from junction to lead and from junction to ambient with 0.375" (9.5mm) lead length, leads attached to heat sink
 2. Pulse test: 300 pulse width, 1% duty cycle

FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

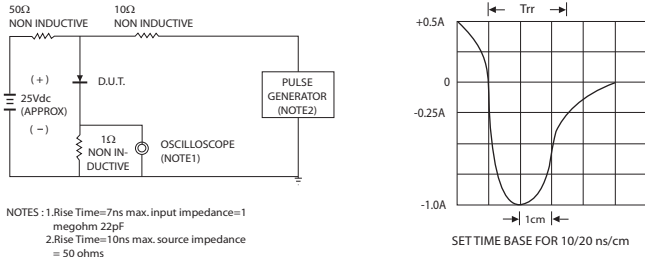


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

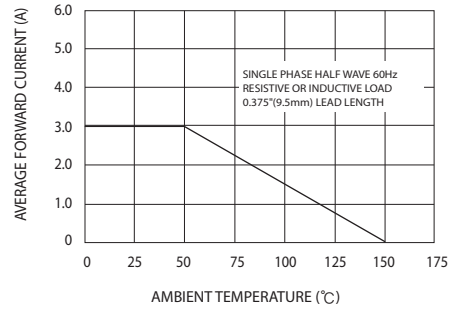


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

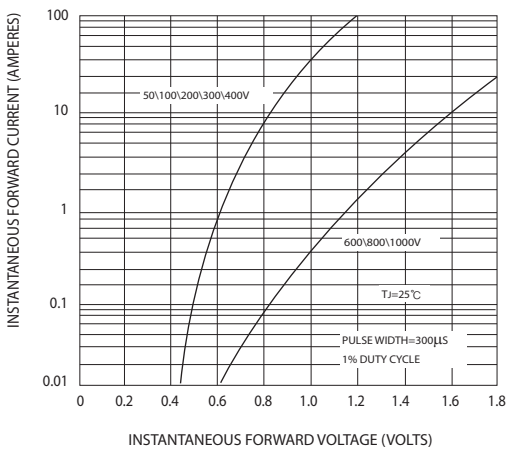


FIG.4-TYPICAL REVERSE CHARACTERISTICS

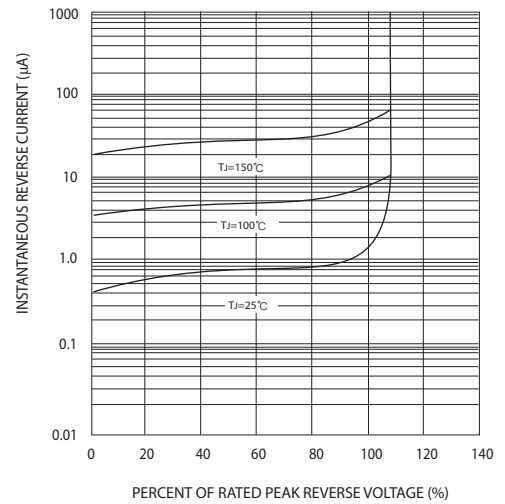


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

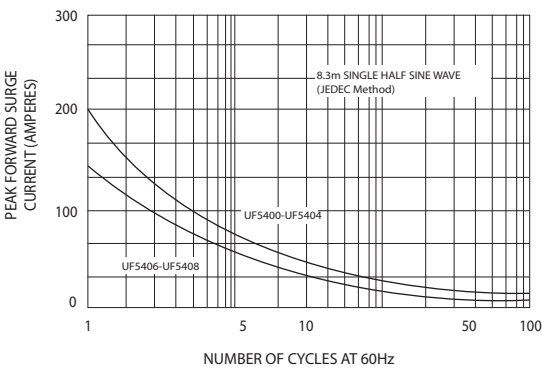


FIG.6-TYPICAL JUNCTION CAPACITANCE

