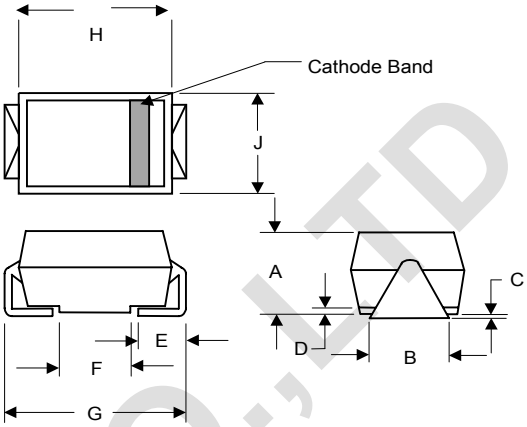
WEJ®

RoHS

US1A-US1K



FEATURES

- For surface mounted app cations
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260 ¢J/10 seconds at terminals

DIMENSIONS					
	INCHES		MM		
DIM	MIN.	MAX	MIN	MAX	NOTE
A	.078	.116	1.98	2.95	
B	.067	.089	1.70	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.055	.89	1.40	
F	.065	.096	1.65	2.45	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.100	.112	2.57	2.84	

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

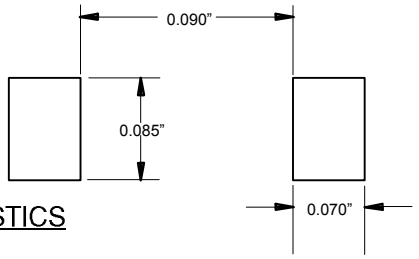
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.002 ounce, 0.064 gram

SUGGESTED SOLDER PAD LAYOUT



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

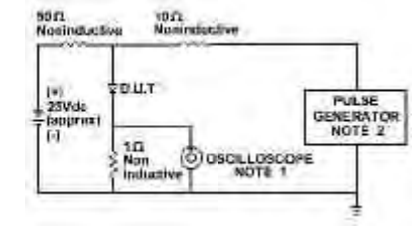
Ratings at 25 ¢J ambient temperature unless otherwise specified.

Resistive or inductive load. For capacitive load, derate current by 20%.

	SYMBOLS	US1A	US1B	US1D	US1G	US1J	US1K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, at T_L=100 ¢J	$I_{(AV)}$	1.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method) T_A=55 ¢J	I_{FSM}	30.0						Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.0			1.4	1.7		Volts
Maximum DC Reverse Current T_A=25 ¢J At Rated DC Blocking Voltage T_A=100 ¢J	I_R	10.0 100						£g A
Maximum Reverse Recovery Time (Note 1) T_J=25 ¢J	T_{RR}	50.0				100.0		nS
Typical Junction capacitance (Note 2)	C_J	17						pF
Maximum Thermal Resistance (Note 3)	R £KJL	30						¢J/W
Operating and Storage Temperature Range	T_J,T_{STG}	-50 to +150						¢J

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts
3. 8.0mm^2 (.013mm thick) land areas



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

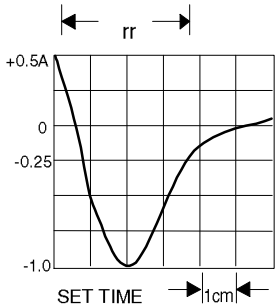


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRA

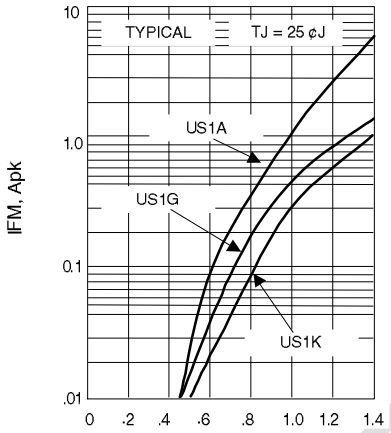


Fig. 2-FORWARD CHARACTERISTICS

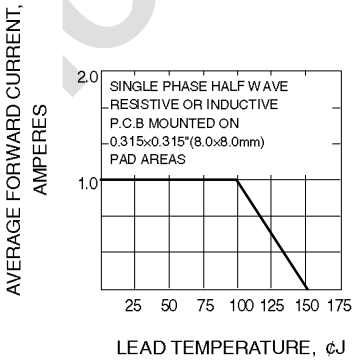


Fig. 3-FORWARD CURRENT DERATING CURVE

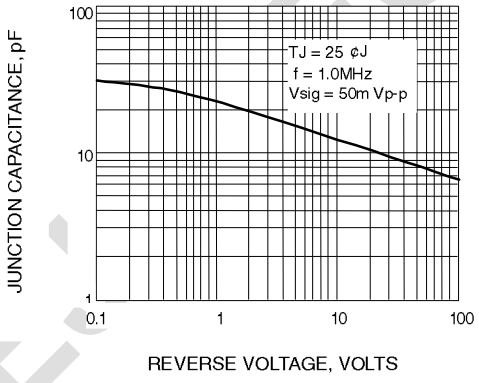


Fig. 4-TYPICAL JUNCTION CAPACITANCE

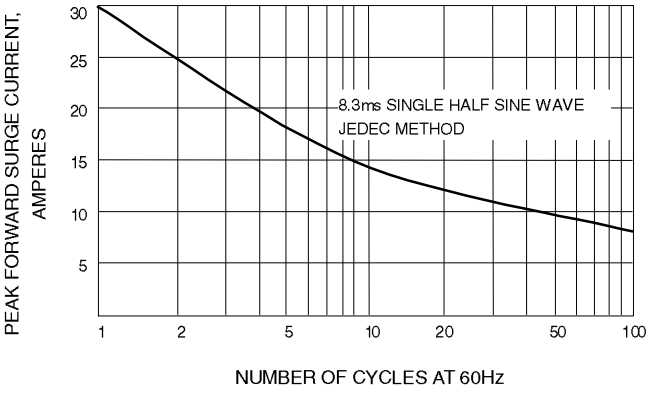


Fig. 5-PEAK FORWARD SURGE CURRENT