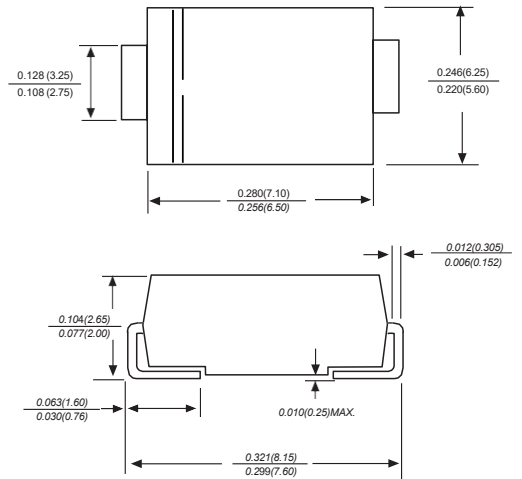


SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250 °C/10 seconds at terminals

DO-214AB/SMC



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%.

Parameter	SYMBOLS	MURS405	MURS410	MURS415	MURS420	MURS430	MURS440	MURS450	MURS460	UNITS
Marking Code										
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current at TL(see fig.1)	I _(AV)	4.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	125								A
Maximum instantaneous forward voltage at 4.0A	V _F	0.89				1.28				V
Maximum DC reverse current T _A =25℃ at rated DC blocking voltage T _A =125℃	I _R	10.0						100		mA
		100								
Typical junction capacitance (NOTE 1)	C _J	95						pF		
Typical thermal resistance (NOTE 2)	R _{θJA}	20.0						℃/W		
Operating junction temperature range(NOTE3)	t _{rr}	25.0				50.0				ns
Storage temperature range	T _j T _{STG}	-55 to +150								℃

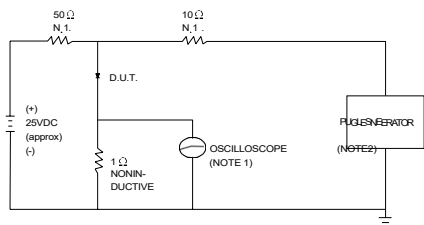
NOTE: 1. Thermal resistance from junction to ambient.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

Typical Characteristics

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



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1M Ω 22pF.
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 Ω

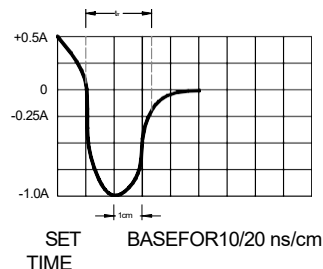


FIG.3- TYPICAL REVERSE CHARACTERISTIC

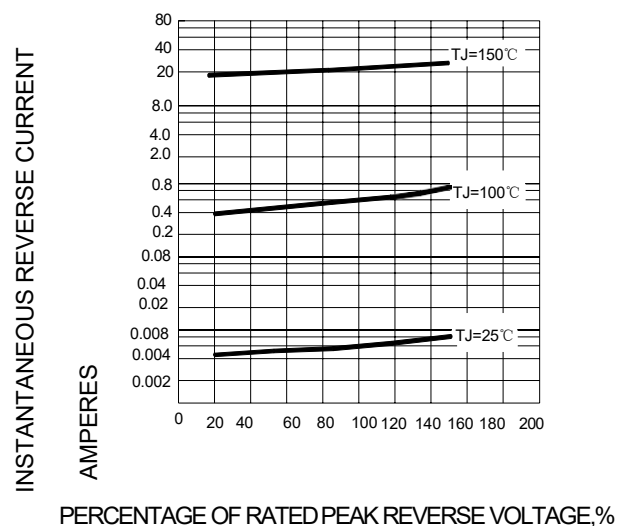
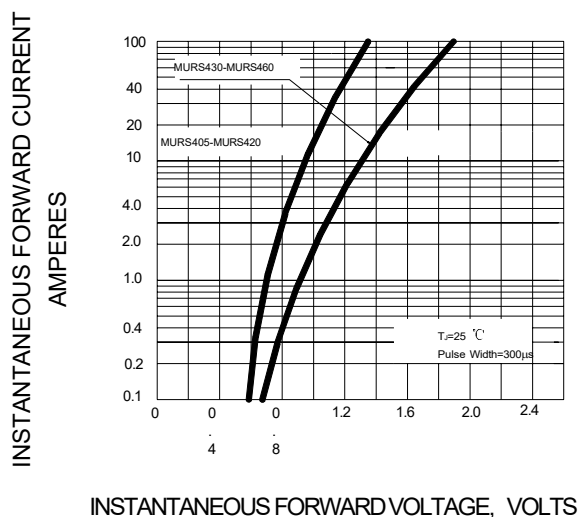


FIG.4 – TYPICAL JUNCTION CAPACITANCE

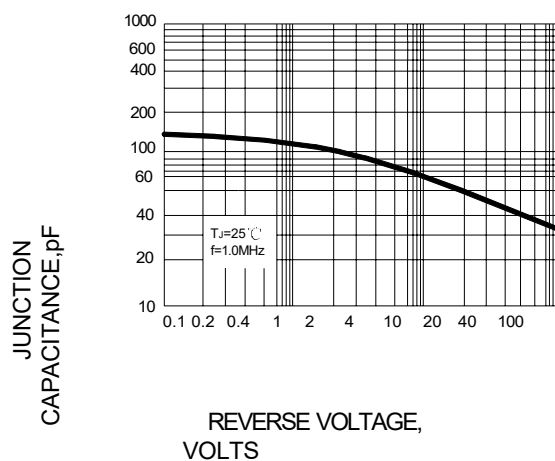
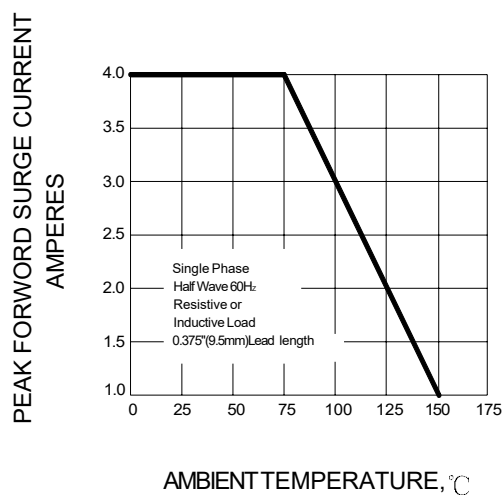


FIG.5-FORWARD DERATING CURVE



The curve above is for reference only.