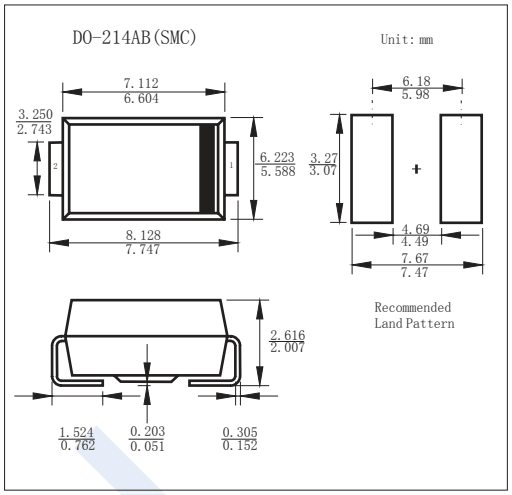
Rectifier Diodes

US3A ~ US3M



■ Features

- For surface mount applications
- Low profile package
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Low forward voltage,low power loss
- Plastic package has underwriters laboratories flammability classification 94V-0

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	US3A	US3B	US3D	US3G	US3J	US3K	US3M	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Forward Voltage@ T_J=25℃ I_{FM}=3A	V_F	1				1.7			
Averaged Forward Current.@ T_L=110℃	I_{FAV}	3							A
Peak Forward Surge Current @ 8.3ms	I_{FSM}	100							
Maximum DC Reverse Current Ta=25℃	I_R	10							μA
Ta=125℃		500							
Maximum Reverse Current (Note.1)	trr	50				75			ns
Typical Junction Capacitance (Note.2)	Cj	70				50			pF
Thermal Resistance.Junction- to-Ambient	R_{thJA}	25							℃/W
Junction Temperature	Tj	150							℃
Storage Temperature	Tstg	-55 to 150							

Note.1: I_F=0.5A, I_R=1.0A,Irr=0.25A

Note.2: Measured at 1.0MHz, V_R=4.0V

■ Marking

NO.	US3A	US3B	US3D	US3G	US3J	US3K	US3M
Marking	US3A	US3B	US3D	US3G	US3J	US3K	US3M

Rectifier Diodes

US3A ~ US3M

■ Typical Characterisitics

FIG.1 – FORWARD CURRENT DERATING CURVE

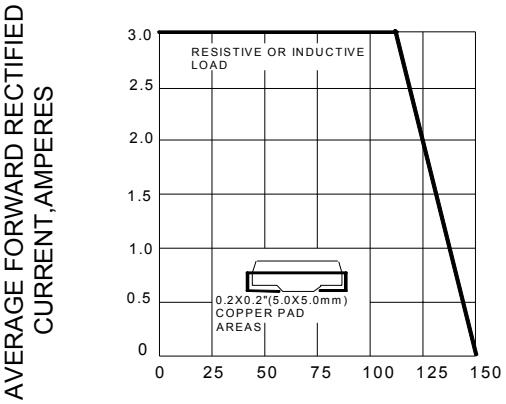


FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

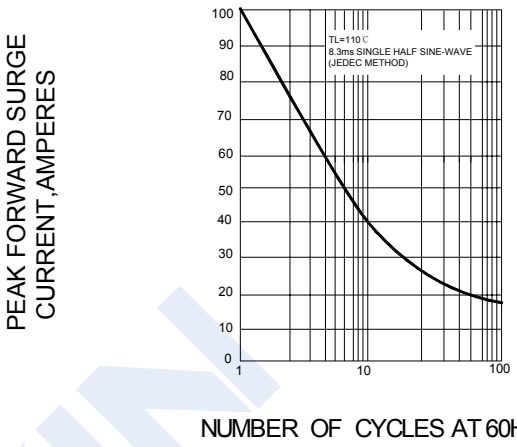


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

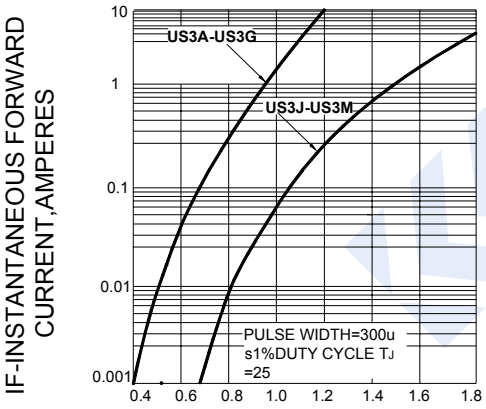


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

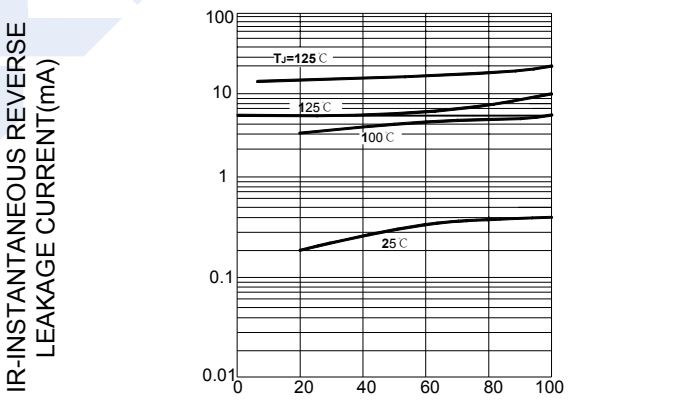


FIG.5 – TYPICAL JUNCTION CAPACITANCE

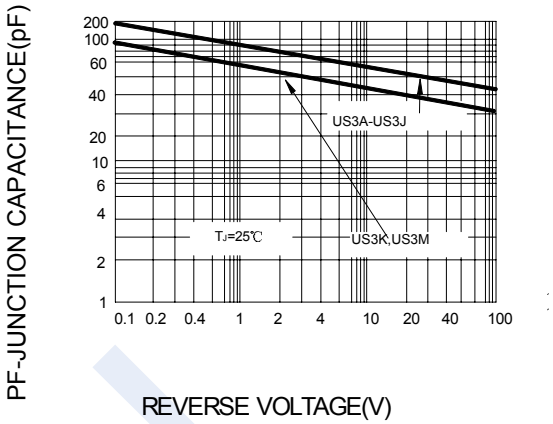


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE