

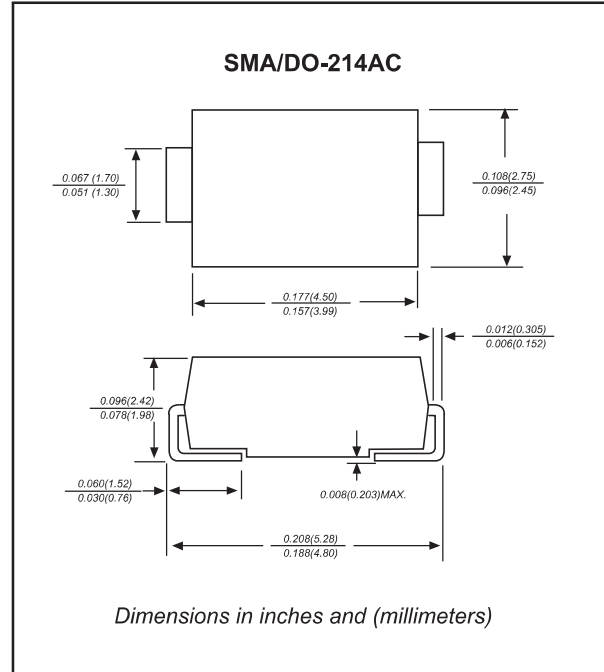
Features

- Fast switching speed.
- Low profile surface mounted application in order to optimize board space.
- Surface mount package ideally suited for automatic insertion.
- Low power loss, high efficiency.
- High forward surge current capability.
- Glass passivated chip junction.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen - free

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC/SMA
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I _O			1.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I _{FSM}			30	A
Reverse current	V _R = V _{RRM} T _J = 25°C	I _R			5.0	μA
	V _R = V _{RRM} T _J = 125°C				150	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J		15		pF
Storage temperature		T _{STG}	-65		+175	°C

SYMBOLS	V _{RRM} *1 (V)	V _{RMS} *2 (V)	V _R *3 (V)	V _F *4 (V)	trr*5 (ns)	Operating temperature T _J , (°C)
MURS120-A	200	140	200	0.95	25	
MURS140-A	400	280	400	1.30	50	
MURS160-A	600	420	600			

Note 1. Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=1.0A

*5 Maximum Reverse recovery time, note 1

Rating and characteristic curves (MURS120-A THRU MURS160-A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

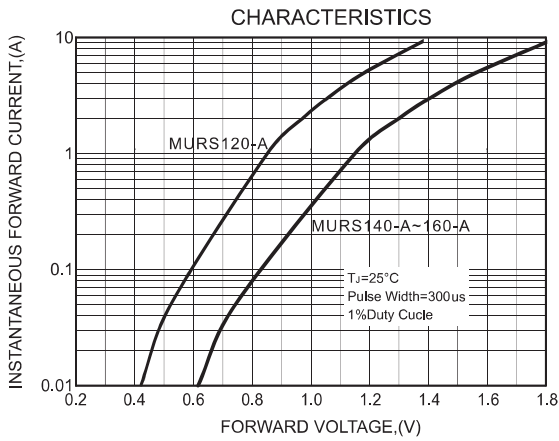


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

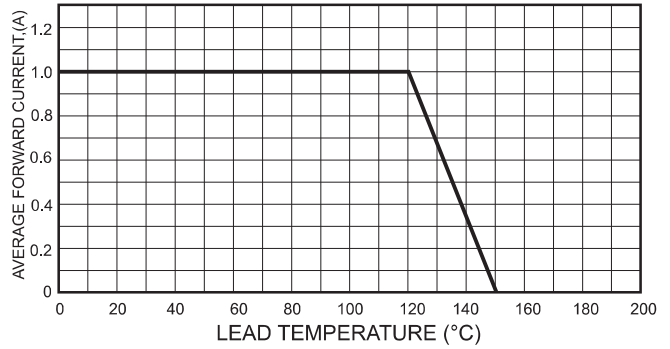


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

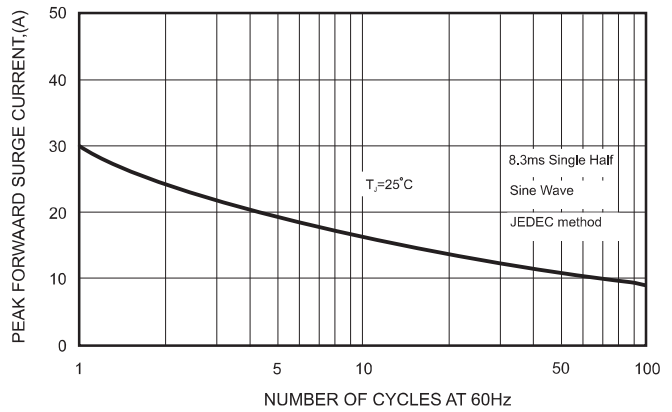
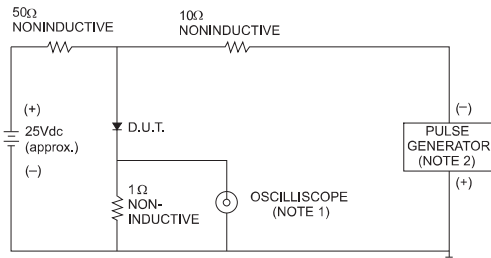


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

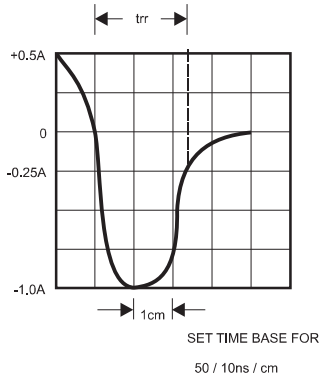
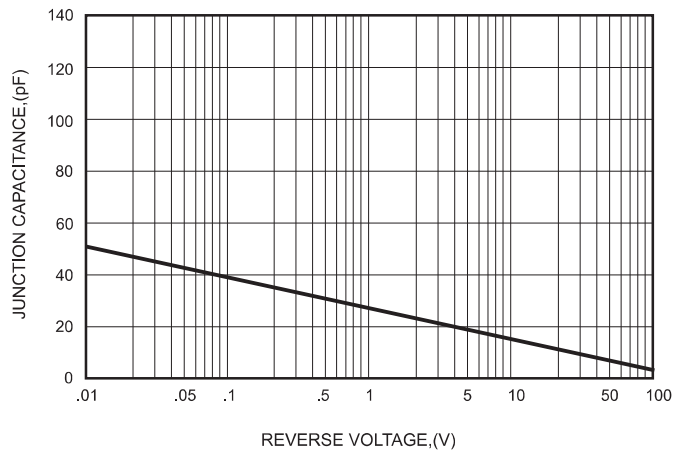




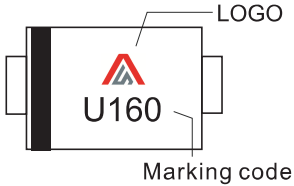
FIG.5-TYPICAL JUNCTION CAPACITANCE



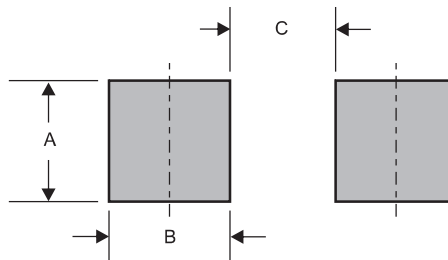
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example
MURS120-A	U120	
MURS140-A	U140	
MURS160-A	U160	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)