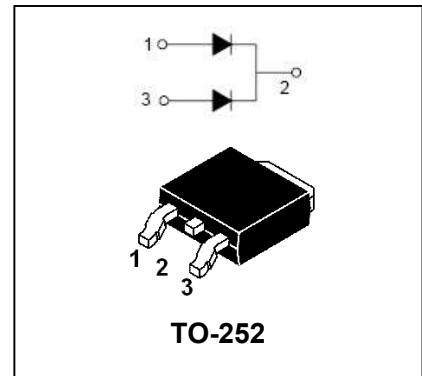


SUPER FAST RECTIFIERS

USF1620DC-USF1660DC

FEATURES

- Low cost.
- Low leakage.
- Low forward voltage drop.
- High currnt capability.
- Easily cleaned with Alcohol,Isopropanol and similar solvents.
- The plastic material carries U/L recognition 94V-0.



Ordering Information

Part Number	Package	Shipping	Marking Code
USF1620DC□	TO-252	80/Tube or2500/Tape Reel	USF1620DC
USF1630DC□	TO-252	80/Tube or2500/Tape Reel	USF1630DC
USF1640DC□	TO-252	80/Tube or2500/Tape Reel	USF1640DC
USF1650DC□	TO-252	80/Tube or2500/Tape Reel	USF1650DC
USF1660DC□	TO-252	80/Tube or2500/Tape Reel	USF1660DC

□: none is for Lead Free package;

“G” is for Halogen Free package.

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	USF 1620DC	USF 1630DC	USF 1640DC	USF 1650DC	USF 1660DC	Unit
V_{RRM}	Rcurrent Peak Reverse Voltage	200	300	400	500	600	V
V_{RMS}	RMS Voltage	140	210	280	350	420	V
V_{DC}	DC Blocking Voltage	200	300	400	500	600	V
$I_{F(AV)}$	Average Forward Rectified Current @ $T_A=100^{\circ}C$	16					A
I_{FSM}	Peak Forward SurgeCurrent 8.3ms Single Half Sine-wave Superimosed On Rated Load	125					A
$T_j T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150					$^{\circ}C$

SUPER FAST RECTIFIERS

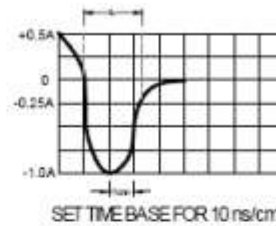
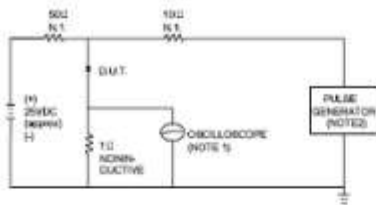
USF1620DC-USF1660DC

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MAX			UNIT
			USF1620DC	USF1630DC- USF1640DC	USF1650DC- USF1660DC	
Forward Voltage	V_F	$I_F=8A$	0.98	1.5	2.3	V
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ C$	5.0	10		μA
		$V_R=V_{RRM}, T_A=100^\circ C$	250	500		
Reverse Recover Time	t_{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	25			ns

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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



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

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

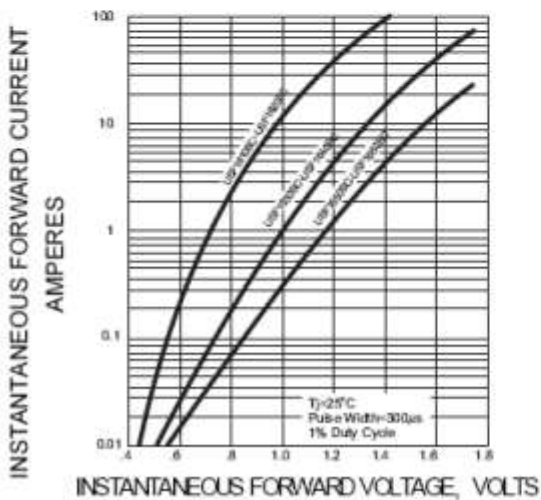
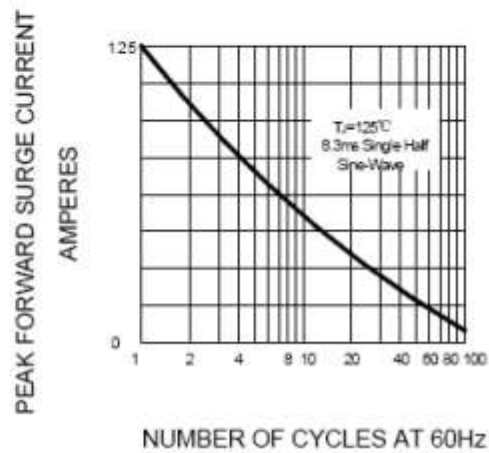


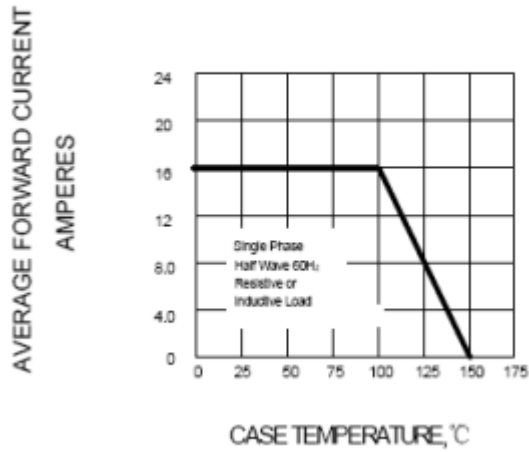
FIG.3 – PEAK FORWARD SURGE CURRENT



SUPER FAST RECTIFIERS

USF1620DC-USF1660DC

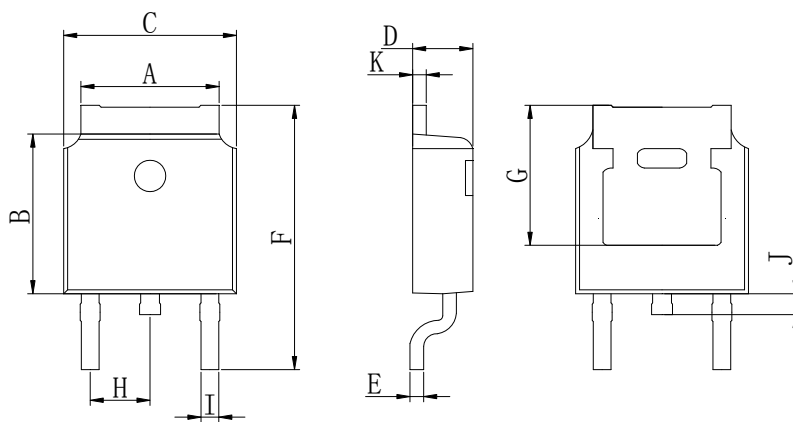
FIG.4-FORWARD DERATING CURVE



PACKAGE OUTLINE

Plastic surface mounted package

TO-252

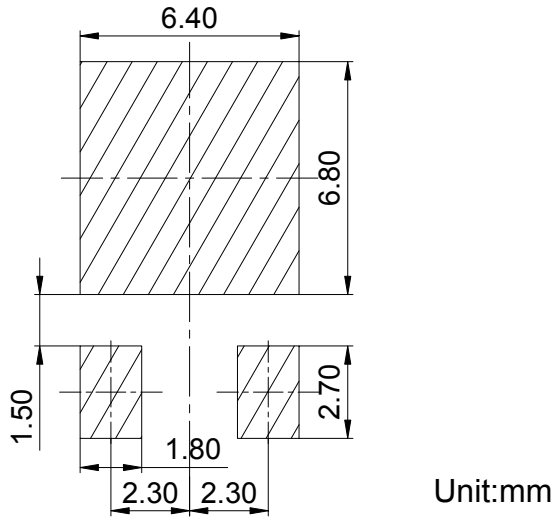


TO-252		
A	5.05	5.65
B	5.80	6.40
C	6.25	6.85
D	2.20	2.40
E	0.40	0.60
F	9.71	10.31
G	5.05	5.65
H	2.10	2.50
I	0.70	0.90
J	0.50	0.70
K	0.40	0.60
All Dimensions in mm		

SUPER FAST RECTIFIERS

USF1620DC-USF1660DC

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
USF1620DC-USF1660DC	TO-252	80PCS/Tube
		2500PCS/Tape&Reel