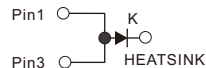
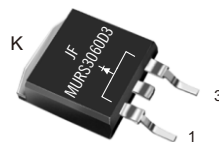


## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast and soft recovery time for high efficiency
- Low VF ,Low power loss
- Polyimide passivation
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

## TO-263(D<sup>2</sup>PAK)



## MECHANICAL DATA

- Case: JEDEC TO-263(D<sup>2</sup>PAK) molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

## TYPICAL APPLICATIONS

For use in boost stage in SMPS  
high frequency inverters for solar inverters  
DC/DC converters  
high frequency output rectification of battery chargers  
free wheeling diodes in motor drivers

PRIMARY CHARACTERISTICS	
$I_F(AV)$	30.0A
$V_R$	600V
$I_{FSM}$	250A
$V_F$ at $I_F=30.0A, 125^{\circ}C$	1.50V
$T_{rr typ}$	30ns
$T_{JMAX}$	175°C

## MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum average forward rectified current	$I_F(AV)$	30.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated $T_L$ )	$I_{FSM}$	250	A
Operating junction temperature range	$T_J$	-55 to +175	°C
Storage temperature range	$T_{stg}$	-55 to +175	°C

# RATINGS AND CHARACTERISTIC OF MURS3060D3

## ELECTRICAL CHARACTERISTCS (T<sub>J</sub>=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	IR=200μA		VBR VR	600	–	–	V
Instaneous forward voltage	TJ=25℃	IF=15.0A	VF 1)	–	1.50	–	V
		IF=30.0A		–	1.90	2.40	
	TJ=125℃	IF=15.0A		–	1.20	–	
		IF=30.0A		–	1.60	2.00	
Reverse current	TJ=25℃	VR=600V	IR 2)	–	1	10	μ A
	TJ=125℃			–	50	250	
Junction capacitance	4V,1MHz		CJ	–	121	–	pF

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle  
2.Pulse test: pulse width≤40ms

## DYNAMIC RECOVERY CHARACTERISTCS (T<sub>J</sub>=25°C Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	I <sub>F</sub> =0.5A,I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	—	30	35	ns

# RATINGS AND CHARACTERISTIC OF MURS3060D3

## THERMAL CHARACTERISTCS

Parameter	Symbol	TO-263	Unit
Typical thermal resistance <sup>3)</sup>	R $\theta$ jc	1.5	°C/W

3.Thermal resistance from junction to case

## AVAILABALE PACK INFORMATION

Product code	Pack	Box Size L×W×H(mm)	Quantity (pcs/box)	Carton SizeL×W×H(mm)	Quantity (box/carton)
MURS3060D3-TO-263	P/T	558×148×38	1000	565×225×170	5

FIG.1-FORWARD CURRENT DERATING CURVE

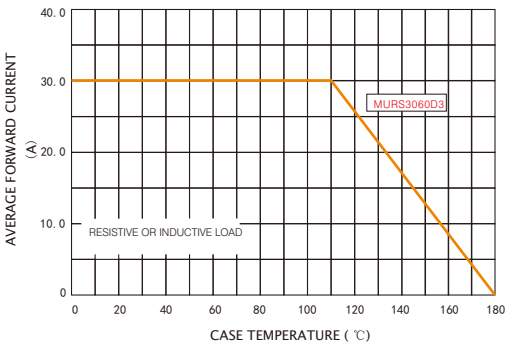
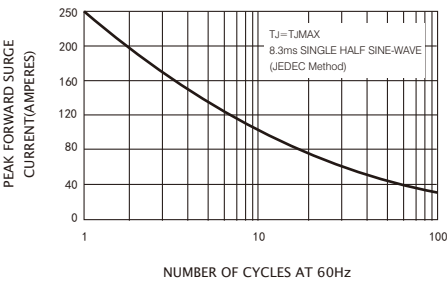


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



# RATINGS AND CHARACTERISTIC OF MURS3060D3

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

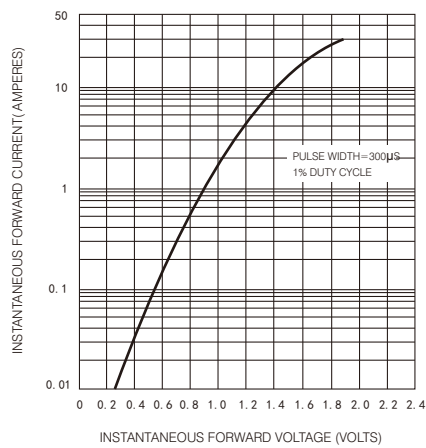


FIG.4-TYPICAL REVERSE CHARACTERISTICS

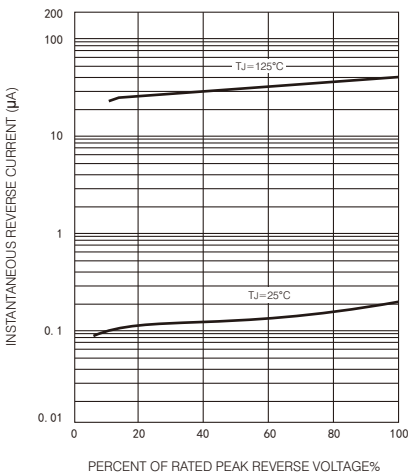
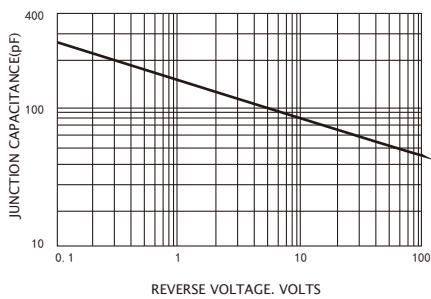
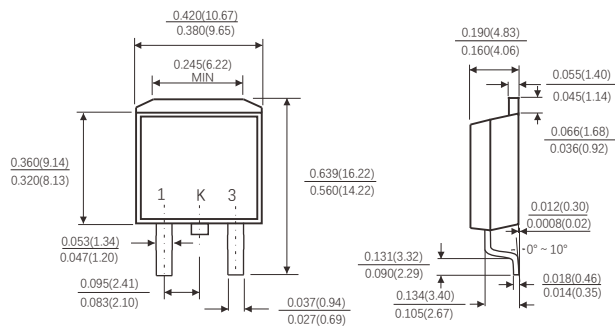


FIG.5-TYPICAL JUNCTION CAPACITANCE

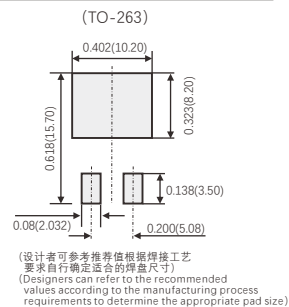


# PACKAGE OUTLINE DIMENSIONS

## TO-263



## Suggested Pad Layout



Dimensions in inches and (millimeters)