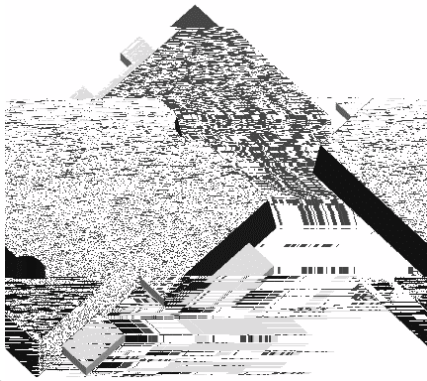


Surface Mount Ultrafast Rectifier Diode



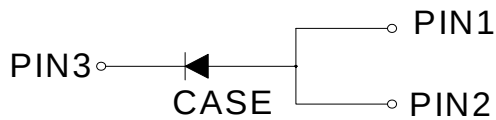
Unless otherwise specified)

Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.



PARAMETER	SYMBOL	UNIT	MUR5AU60
Device marking code			MUR5AU60
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	600
Maximum RMS Voltage	V_{RMS}	V	424
Maximum DC blocking Voltage	V_{DC}	V	600
Average Rectified Output Current @60Hz sine wave, Resistance load, T_c (FIG.1)	I_O	A	5.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25$	I_{FSM}	A	120
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25$			240
Current squared time @1ms ≤ t ≤ 8.3ms $T_j=25$	I^2t	A^2s	60
Typical Junction capacitance @4V, 1MHz	C_j	pF	40
Storage Temperature	T_{stg}		-55 ~ +150
Junction Temperature	T_j		-55 ~ +150

MUR5AU60

vElectrical Characteristics (T_j=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Instantaneous forward voltage drop per diode	V _{FM}	V	T _j =25 -	I _{FM} =5.0A	-	1.18	1.50
			T _j =125 -		-	0.94	1.25
Reverse Recovery Time	T _{RR}	ns	T _j =25	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	-	-	50
			T _j =25		-	44	-
			T _j =125		-	73	-
Peak recovery current	I _{RRM}	A	T _j =25	I _F =5A di/dt=-200A/us V _{RM} =400V	-	7.05	-
			T _j =125		-	11.33	-
Reverse recovery charge	Q _{rr}	nC	T _j =25		-	155	-
			T _j =125		-	410	-
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	T _j =25 -	V _{RM} =V _{RRM}	-	-	5
	I _{RRM2}		T _j =125 -		-	-	50
Non-repetitive avalanche energy	EAS	mJ	T _j =25	I _R =1.4A L=15 mH	120		

vThermal Characteristics (T_j=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR5AU60
Typical Thermal resistance	R _{J-A} ⁽¹⁾	- /W	50
	R _{J-C} ⁽¹⁾		8

vOrdering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR5AU60	F1	Approximate 0.0821	5000	/	80000	13" reel



MUR5AU60

■ Characteristics (Typical)

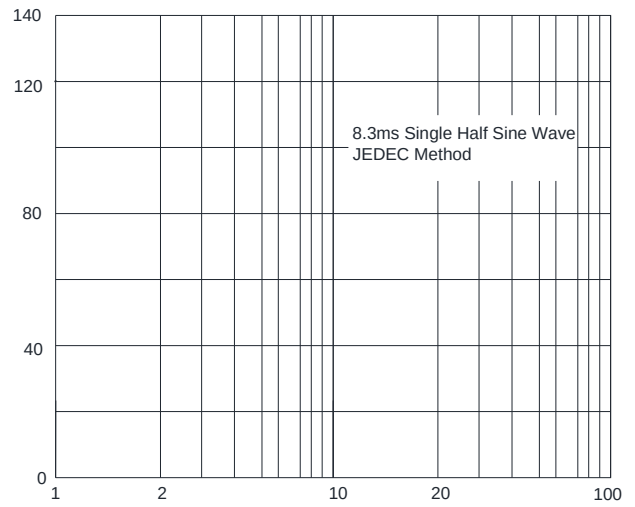
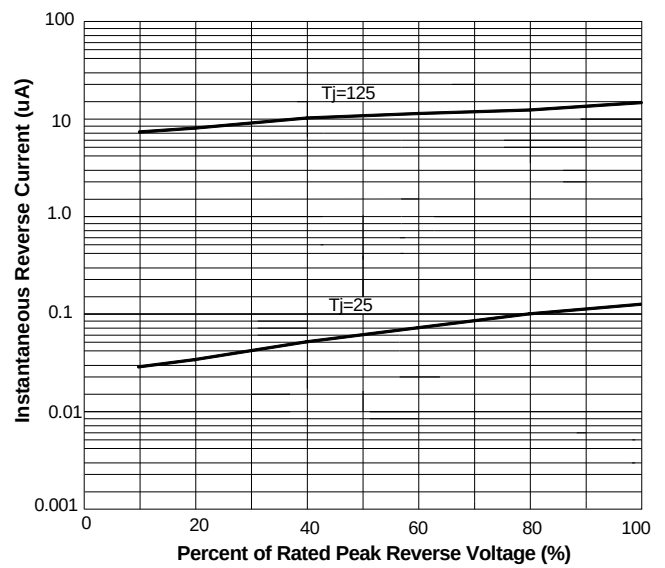


FIG.4: Typical Reverse Characteristics







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