



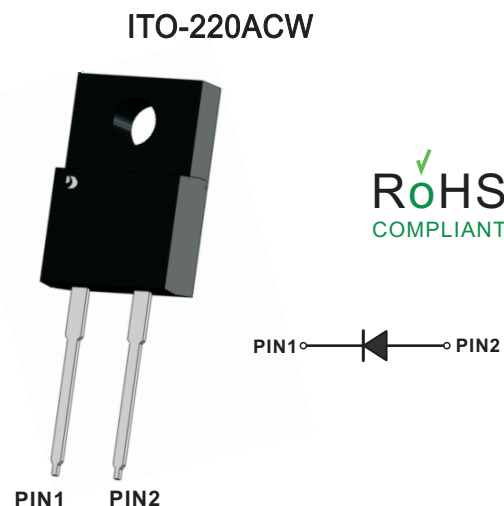
**Fast Recovery EPI Diodes**  
**Reverse Voltage - 600 Volts**  
**Forward Current - 30 Amperes**

**Features**

- High Speed Switching
- High Reverse Voltage
- Low voltage drop
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

**Mechanical Data**

- Case: ITO-220ACW
- Approx. Weight: 1.483g ( 0.052oz)
- RoHS compliant
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".



**Maximum Ratings And Electrical Characteristics**

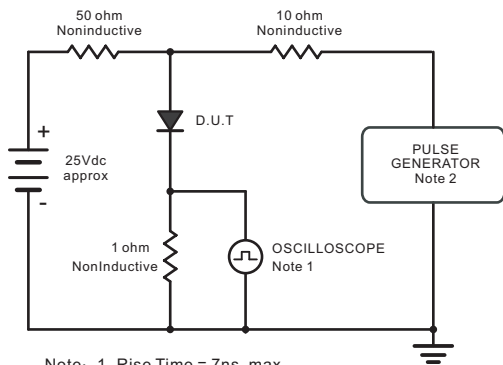
Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Parameter	Symble	MURS3060F	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	30	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	$I_{FSM}$	280	A
Typical Thermal Resistance (P.C.B. mounted with 3.81X3.81cm copper pad areas.)	$R_{\theta JA}$ $R_{\theta JC}$	60 3.8	°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150	°C

Parameter	Symbols	Test Conditions	Min	Typ	Max	Units
Instantaneous forward voltage per leg	$V_F$	$I_F=30A, T_J=25^\circ C$		1.8	2.7	V
Reverse current per leg	$I_R$	$V_R=600V, T_J=25^\circ C$ $V_R=600V, T_J=125^\circ C$			10 500	uA uA
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$			30	ns



Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

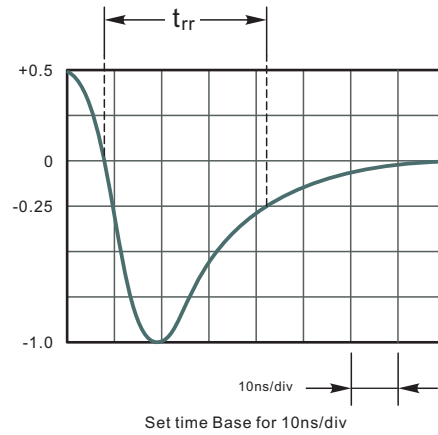


Fig.2 Typical Forward Current Derating Curve

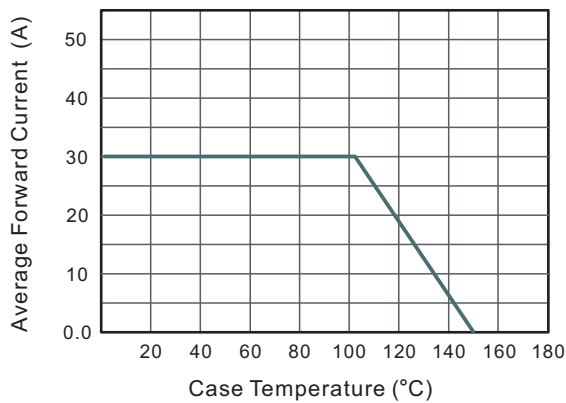


Fig.3 Typical Instantaneous Reverse Characteristics

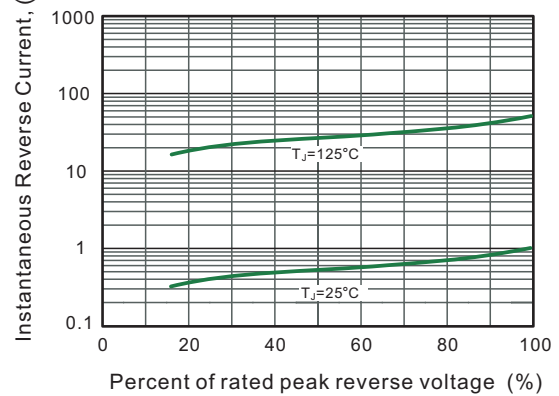


Fig.4 Typical Forward Characteristic

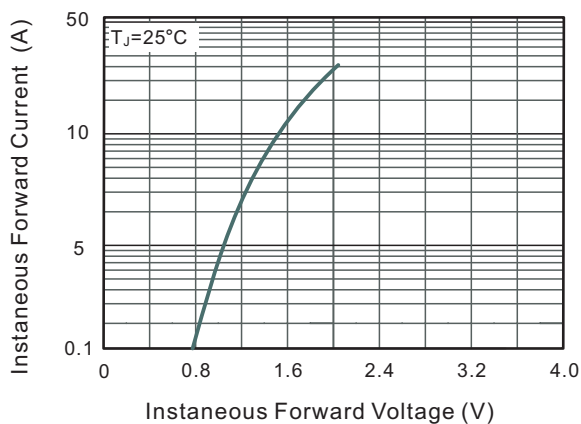
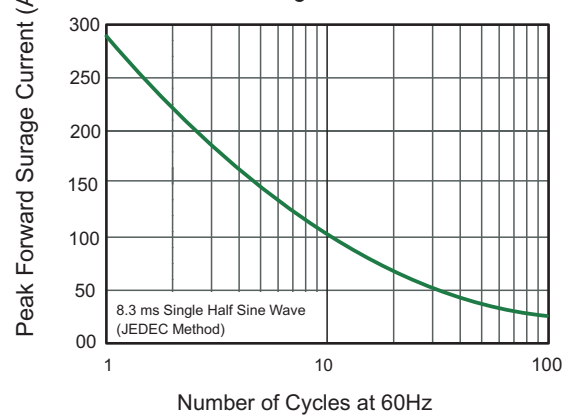


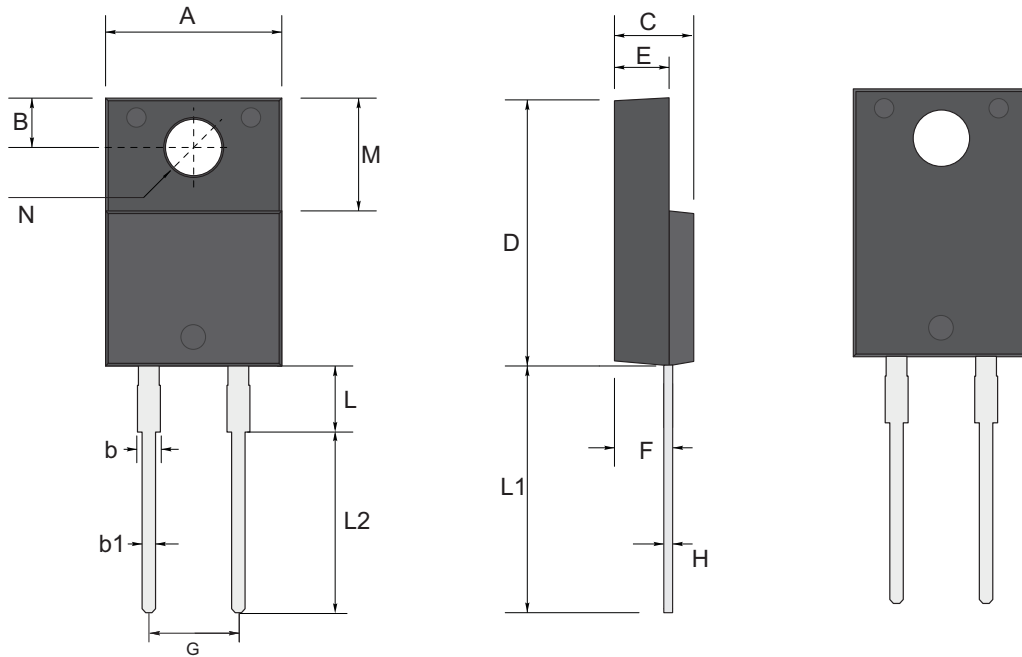
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline  
Through Hole Package ; 2 leads

ITO-220ACW



ITO-220ACW mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	L2	M	N
mm	max	10.5	2.85	1.4	0.8	4.7	16.0	2.9	3.55	5.1 typ.	0.70	2.9	14.3	11.8	7.0	3.4 typ.
	typ	10.0	2.70	1.2	0.6	4.5	15.0	2.7	3.25		0.55	2.5	13.5	11.0	6.8	
	min	9.85	2.54	1.1	0.5	4.4	14.7	2.5	2.95		0.41	2.3	13.0	10.5	6.3	
mil	max	413	112	55	31	185	630	114	140	201 typ.	28	114	563	465	276	134 typ.
	typ	394	106	47	24	177	591	106	128		22	98	531	433	268	
	min	388	100	43	20	173	579	98	116		16	91	512	413	248	

**Marking**

Type number	Marking code
MURS3060F	MURS3060F



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