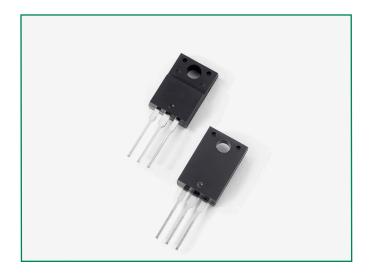


DURF3060CT









Description

Littelfuse DUR series Ultrafast Recovery Rectifier is designed to meet the general requirements of commercial applications by providing low Trr, high-temperature, low-leakage and low forward voltage drop products. It is suitable for output rectifier, free-wheeling or boost diode in high-frequency power switching application such as switch mode power supply and DC-DC converters.

Features

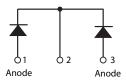
- Ultra-fast switching
- Low reverse leakage current
- High surge current capability
- Low forward voltage drop
- Common Cathode

configuration in electrically isolated ITO-220AB package

 Pb-free E3 means 2nd level interconnect is Pbfree and the terminal finish material is tin(Sn) (IPC/ JEDEC J-STD-609A.01)

Circuit Diagram





Applications

- Output rectifiers in switch mode power supplies (SMPS) and DC to DC converters
- Free-wheeling diode or boost diode in converters and motor control circuits
- Anti-parallel diode for high frequency switching devices such as IGBT
- Uninterruptible Power Supplies (UPS)
- Inductive heating and melting
- Ultrasonic cleaners and welders

Maximum Ratings

Characteristics	Symbol	Conditions	Max.	Unit
Peak Inverse Voltage	V _{RWM}	-	600	V
A		Rated Vr@T _c = 105°C, rectangular wave form	15 (Per Leg)	^
Average Rectified Forward Current	F(AV)		30 (Total Device)	A
Peak One Cycle Non- Repetitive Surge Current (Per Leg)	I _{FSM}	8.3 ms, half sine pulse	110	А

Electrical Characteristics

Characteristics	Symbol	Conditions	Тур.	Max.	Unit
Famous ad Maltana Dana / Dana Lagali	V _{F1}	@15A, Pulse, T _J = 25 °C	1.71	2.03	V
Forward Voltage Drop (Per Leg) ¹	V _{F2}	@15A, Pulse, T _J = 125 °C	1.59	-	V
Reverse Current (Per Leg) ¹	I _{R1}	$@V_{_{\rm R}} = \text{Rated V}_{_{\rm R}}, T_{_{\rm J}} = 25 ^{\circ}\text{C}$	0.54	100	μΑ
heverse current (rer Leg)	I _{R2}	$@V_R = Rated V_R, T_J = 125 °C$	277	1500	μΑ
Reverse Recovery Time	t _{rr1}	I _F =500mA, I _R =1A,and I _m =250mA	-	50	ns

Footnote 1: Pulse Width < 300µs, Duty Cycle < 2%

Thermal-Mechanical Specifications

Characteristics	Symbol	Conditions	Specification	Unit
Junction Temperature	T	-	-55 to +150	°C
Storage Temperature	T _{sta}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	R _{euc}	DC operation	1.6	°C/W
Approximate Weight	wt	-	2.0	g
Case Style	_	ITO-220AB	-	-

Figure 1: Typical Forward Characteristics

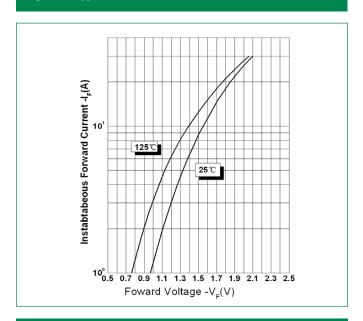


Figure 3: Typical Junction Capacitance

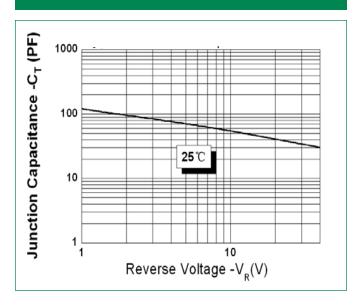
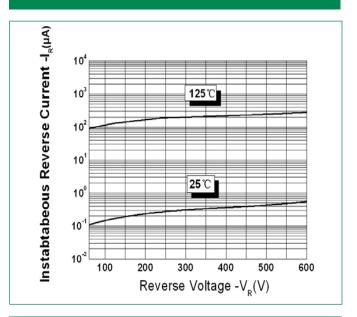
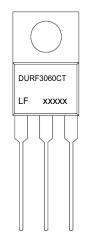


Figure 2: Typical Reverse Characteristics



Part Numbering and Marking System

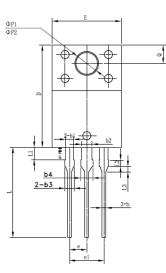


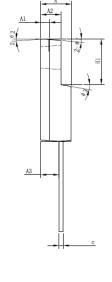
DUR	= Device Type
F	= Package type
30	= Forward Current (30A)
60	= Reverse Voltage (600V)
CT	= Configuration
LF	= Littelfuse
YY	= Year
WW	= Week
L	= Lot Number



	Packing Option	ıs		
	Part Number	Marking	Packing Mode	M.O.Q
ı	DURF3060CT	DURF3060CT	50pcs / Tube	1000

Dimensions-Package ITO-220AB







Cumbal	Millimeters				
Symbol	Min	Тур	Max		
Α	4.30	4.50	4.70		
A1	1.10	1.30	1.50		
A2	2.80	3.00	3.20		
A3	2.50	2.70	2.90		
b	0.50	0.60	0.75		
b1	1.10	1.20	1.35		
b2	1.50	1.60	1.75		
b3	1.20	1.30	1.45		
b4	1.60	1.70	1.85		
С	0.55	0.60	0.75		
D	14.80	15.00	15.20		
Е	9.96	10.16	10.36		
е		2.55			
e1		5.10			
H1	6.50	6.70	6.90		
L	12.70	13.20	13.70		
L1	1.60	1.80	2.00		
L2	0.80	1.00	1.20		
L3	0.60	0.80	1.00		
øP1	3.30	3.50	3.70		
øP2	2.99	3.19	3.39		
Q	2.50	2.70	2.90		
θ1		5°			
θ2		4°			
θ3		10°			
θ4		5°			
θ5		5°			

Tube Specification ITO-220AB

