



DSE804

Preliminary

FAST RECOVERY EPITAXIAL DIODE

SUPERFAST RECOVERY RECTIFIER

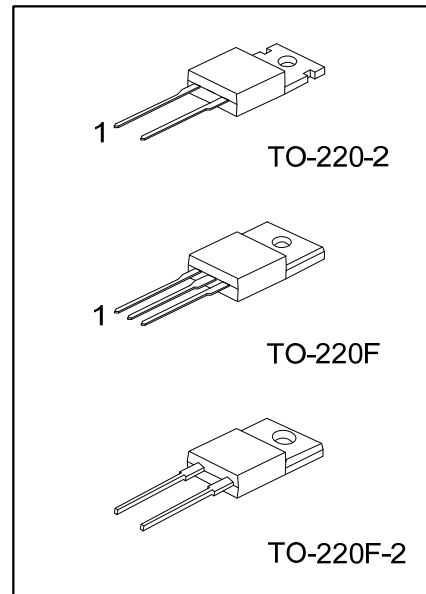
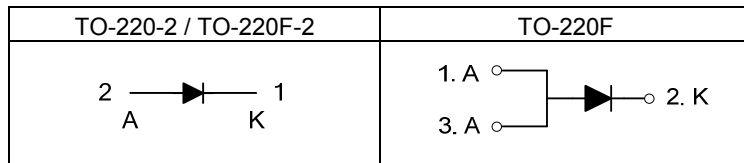
■ DESCRIPTION

The UTC **DSE804** is a superfast recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, low leakage, high current capability and high surge capability, etc.

■ FEATURES

- * Low forward voltage drop
- * low leakage
- * High current capability
- * High surge capacity
- * Super fast recovery times-epitaxial construction

■ SYMBOL



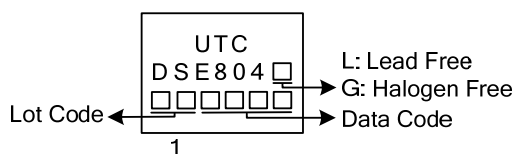
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DSE804L-TA2-T	DSE804G-TA2-T	TO-220-2	K	A	-	Tube
DSE804L-TF3-T	DSE804G-TF3-T	TO-220F	A	K	A	Tube
ER1004L-TF32-R	ER1004G-TF32-R	TO-220F-2	K	A	-	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>DSE804L-TA2-T</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package 	<ul style="list-style-type: none"> (1) T: Tube (2) TA2: TO-220-2, TF3: TO-220F, TF32: TO-220F-2 (3) L: Lead Free, G: Halogen Free and Lead Free
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	400	V
RMS Voltage	V_{RMS}	280	V
Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Average Average Forward Current at $T_C=75^\circ\text{C}$	$I_{F(AV)}$	8	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	125	A
Operating Junction Temperature	T_J	-55~+150	°C
Storage Temperature	T_{STG}	-55~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	62.5	°C/W
Junction to Case	TO-220-2	3	°C/W
	TO-220F/TO-220F-2	5	°C/W

Note: Mounted on P.C. Board with 14mm² (.013mm thick) copper pad areas

■ ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage (Note 1)	V_F	$I_F=8A$			1.3	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^\circ\text{C}$			1	μA
		$T_J=100^\circ\text{C}$			300	μA
Reverse Recovery Time	t_{rr}	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$			50	ns
Junction Capacitance (Note 2)	C_J			65		pF

Notes: 1. Pulse Test : Pulse width ≤ 300μs, Duty cycle ≤ 2%.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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