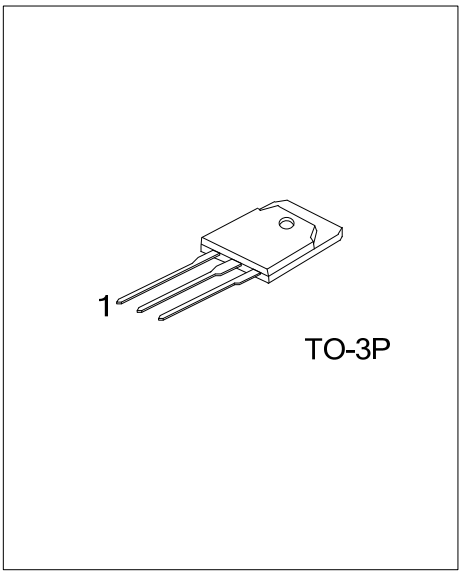
UUD80D40

DIODE

SILICON DIODE



■ DESCRIPTION

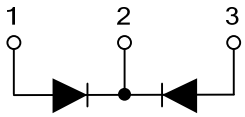
The UTC **UUD80D40** is a silicon diode, it uses UTC's advanced technology to provide customers with low forward voltage, low leakage current and high surge current capability, etc.

The UTC **UUD80D40** is suitable for various applications such as PFC and plating power supply, etc.

■ FEATURES

* Ultrafast recovery time
* Soft recovery characteristic
* Low forward voltage
* Low leakage current
* Low recovery Loss
* High surge current capability

■ SYMBOL



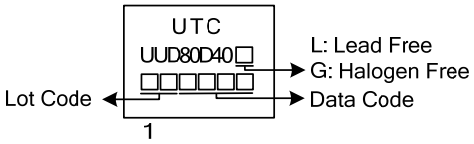
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UUD80D40L-T3P-T	UUD80D40G-T3P-T	TO-3P	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

UUD80D40L-T3P-T (1)Packing Type (2)Package Type (3)Halogen Free	(1) T: Tube (2) T3P: TO-3P (3) L: Lead Free, G: Halogen Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_C=25°C, unless otherwise specified.)

PARAMETER		SYMBOL	RATINGS	UNIT
Working Peak Reverse Voltage		V_{RWM}	400	V
Repetitive Reverse Voltage		V_{RRM}	400	V
DC Reverse Voltage		V_{RM}	400	V
Average Forward Current (T_C=110°C)	Per Leg	I_F	40	A
	Total		80	A
Maximum RMS Forward Current (T_C=110°C)	Total	$I_{F(RMS)}$	56	A
Non-Repetitive Forward Surge Current (T_J=45°C, t=10ms, 50Hz, sine)		I_{FSM}	300	A
Power Dissipation		P_D	156	W
Junction Temperature		T_J	-40~+150	°C
Storage Temperature		T_{STG}	-40~+150	°C
Module-Sink	Recommended (M3)	T_{orque}	1.1	N-m

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.

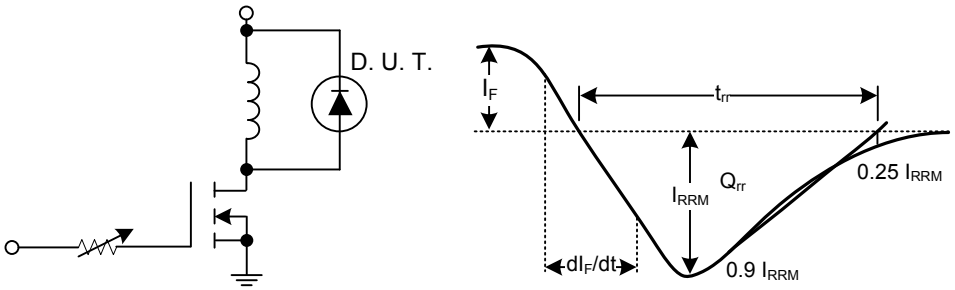
■ THERMAL RESISTANCE

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	0.8	°C/W

■ ELECTRICAL CHARACTERISTICS (T_C=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	I_F=40A		1.0	1.5	V
		I_F=40A, T_J=125°C		0.9		V
Reverse Leakage Current	I_{RM}	V_R=400V			10	μA
		V_R=400V, T_J=125°C			150	μA
Reverse Recovery Time	t_{rr}	I_F=1A, V_R=30V, di_F/dt=50A/μs		108		ns

■ TEST CIRCUITS AND WAVEFORMS



Diode Reverse Recovery Test Circuit and Waveform

■ TYPICAL CHARACTERISTICS