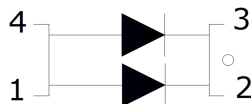
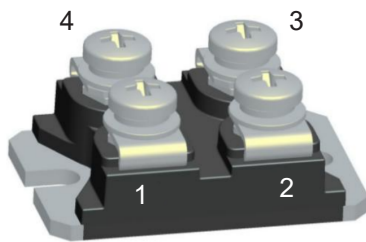


Superfast Recovery Rectifier

NPKEU300-17D
SOT-227



Features

- Low forward voltage drop
- Low leakage
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability

Mechanical Data

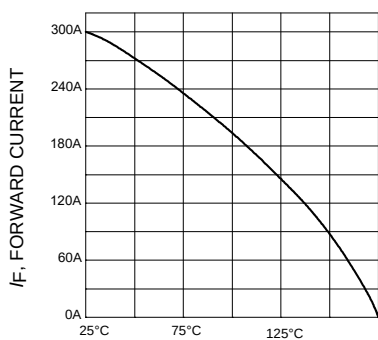
- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed

Parameter		Symbols	NPKEU300-17D		Units
Maximum Repetitive Peak Reverse Voltage		VRRM	1700		V
Maximum RMS voltage		VRMS	1190		V
Maximum DC Blocking Voltage		VDC	1700		V
Maximum Average Forward Rectified Current	per diode	I(AV)	150		A
	total		300		
Maximum Reverse Recovery Time IF=30A, Di/Dt=-200A/uS, Vr=-476V		Trr	350		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		IFSM	4500		A
Instantaneous Forward Voltage per Diode@TA=25 °C		VF	Typ	Max	V
	IF=150A		1.7	--	
	IF=300A		2.0	2.2	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C		IR	10 500		μA
Operating and Storage Temperature Range		Tj, Tstg	-55 ~ +175		°C
Typical thermal resistance (Note 1)		RthJC	1.8		°C/W

Note: 1. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG. 1 - Diode forward current as a function of case temperature



TC, CASE TEMPERATURE, ($T_J=175^{\circ}\text{C}$)

Figure 2. Typical diode forward current as a function of forward voltage

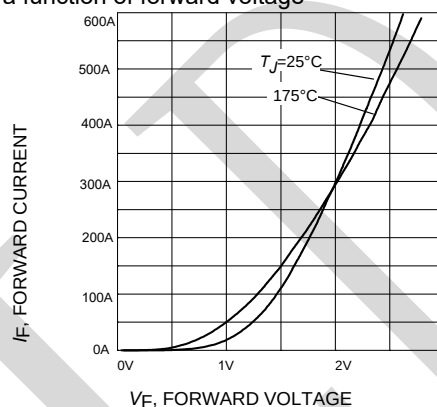
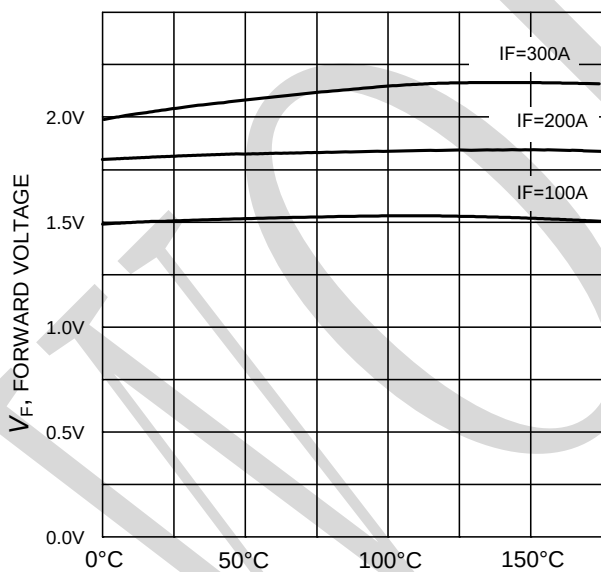
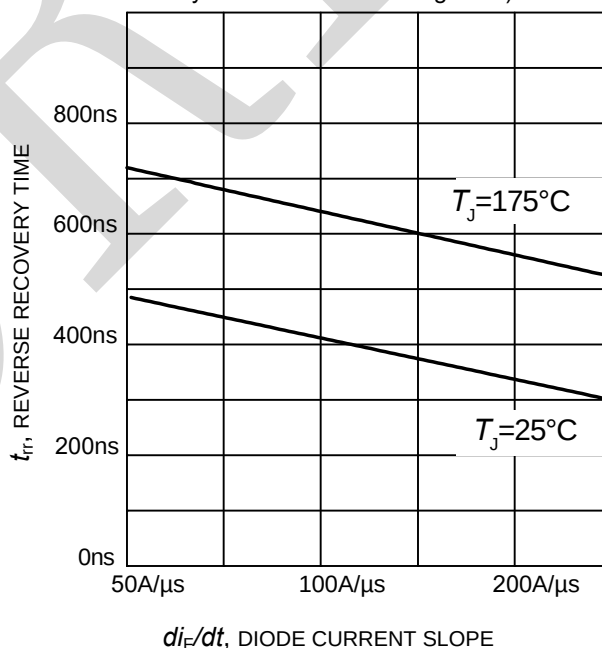


Figure 3. Typical diode forward voltage as a function of junction temperature



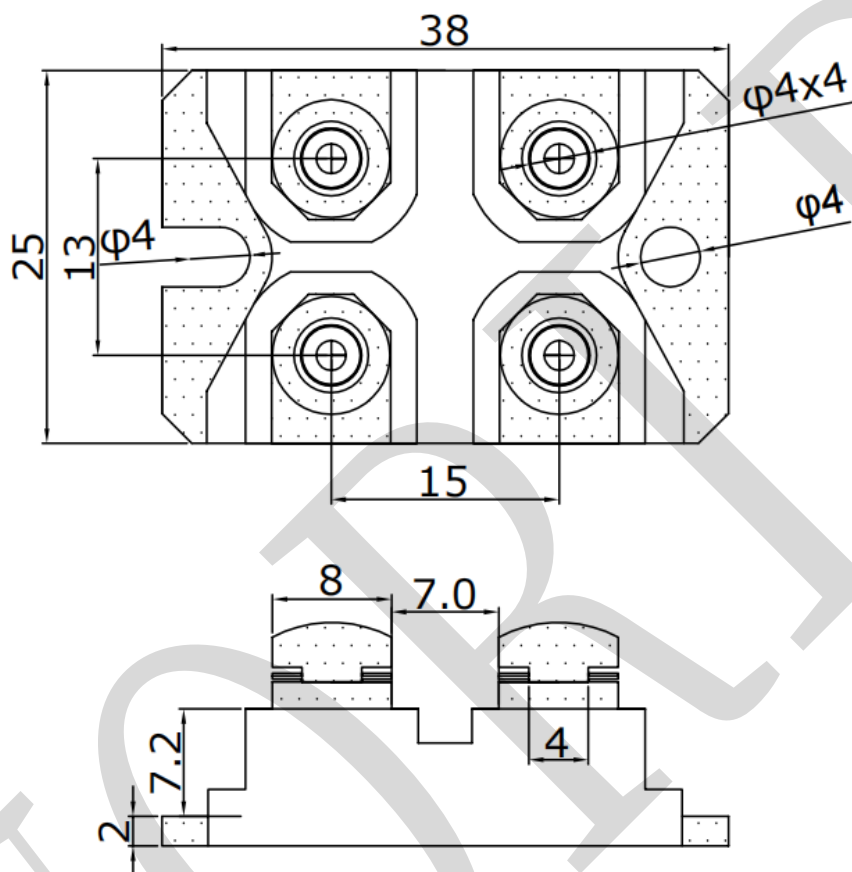
T_J , JUNCTION TEMPERATURE

Figure 5. Typical reverse recovery time as a function of diode current slope ($V_R=476\text{V}$, $I_F=30\text{A}$, Dynamic test circuit in Figure E)

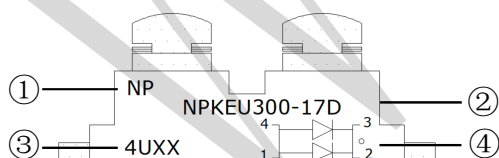


PACKAGE OUTLINE DIMENSIONS

Note:unit mm $\pm 0.5\text{mm}$



Marking Information



- ① NP : Company's trademark
- ② Product model : NPKEU300-17D
- ③ PDC information :

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)

④  Double wafer