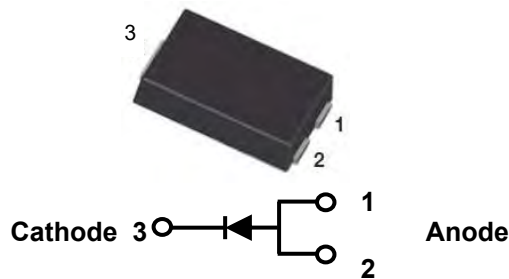


Surface Mount Fast Recovery Rectifier

ES8HSP TO-277



Marking:ES8H

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
- Polarity: Color band denotes cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbols	ES8HSP	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	500	V
Maximum RMS voltage	VRMS	350	V
Maximum DC Blocking Voltage	VDC	500	V
Maximum Average Forward Rectified Current	I _{AV}	8.0	A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A	T _{rr}	35	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	90	A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	33.6	A ² S
Maximum Forward Voltage at 8.0A and 25°C	V _F	1.65	V
Maximum DC Reverse Current @T _A =25 °C at Rated DC Blocking Voltage @T _A =100 °C	I _R	5 100	μA
Typical Junction Capacitance (Note1)	C _j	65	pF
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150	°C
Typical thermal resistance (Note 2)	R _{thJA} R _{thJC}	42 12	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

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

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

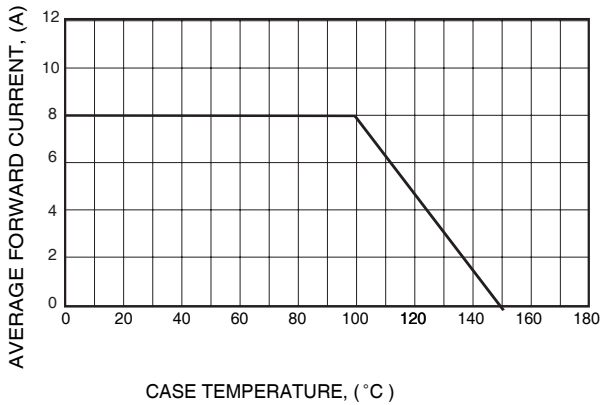


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

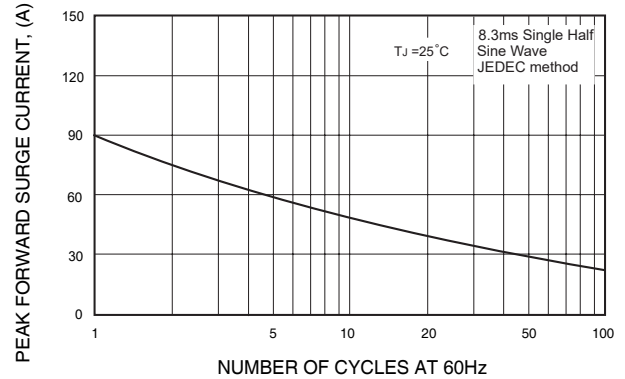


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

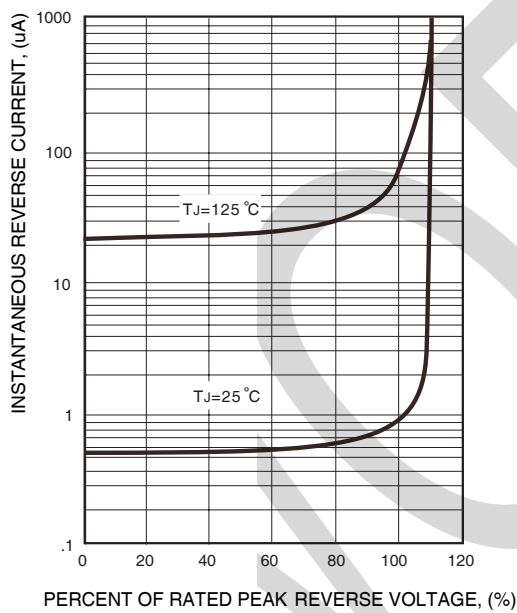
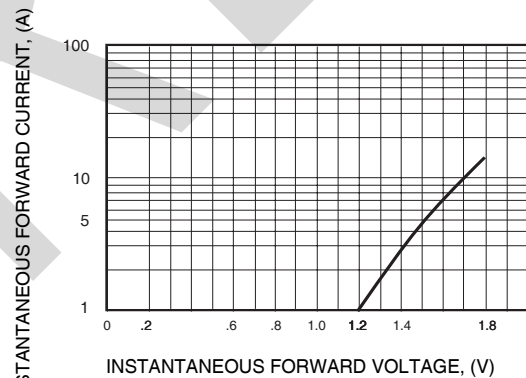
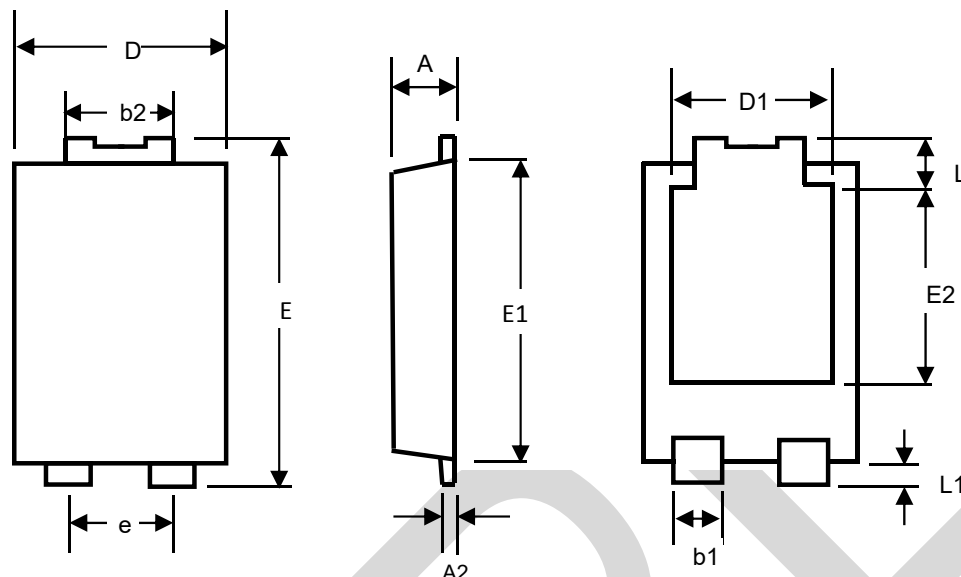


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

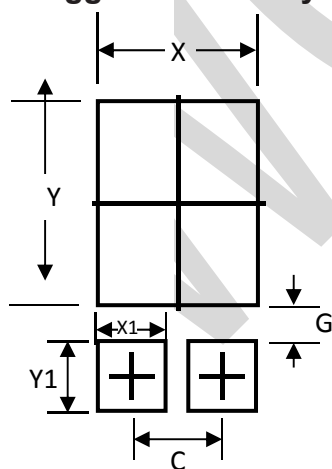
TO-277



TO-277 Mechanical Data

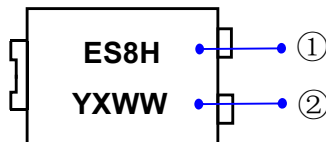
UNIT		A	A2	b1	b2	D	D1	E	E1	E2	L	L1
mm	max	1.3	0.4	1.0	1.9	4.3	3.05	6.6	5.75	3.55	1.0	0.7
	min	1.1	0.2	0.8	1.7	3.9		6.4	5.3		0.8	0.5
mil	max	51.18	15.75	39.37	74.80	169.3	120.0	259.8	226.3	139.7	39.37	27.55
	min	43.30	7.87	31.49	66.93	153.5		252.0	208.6		31.49	19.69

TO-277 Suggested Pad Layout



UNIT		C	G	X	X1	Y	Y1
mm	min	1.80	0.90	3.4	1.4	4.9	1.4
mil	min	78.86	35.43	133.86	35.43	192.91	55.12

Marking Information



①Product model :ES8HSP Referred to as ES8H

②PDC information:

Y X WW

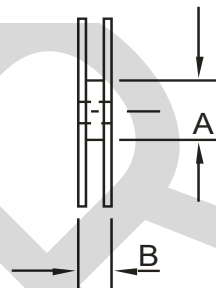
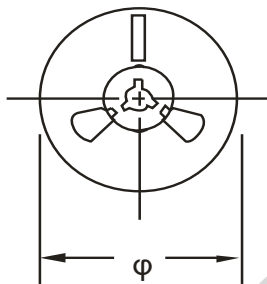
WW:Week code(01 to 53)

X:Internal identification code

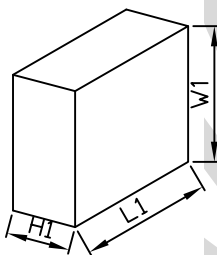
Y:Year code(ex:0=2020)

Packaging Information

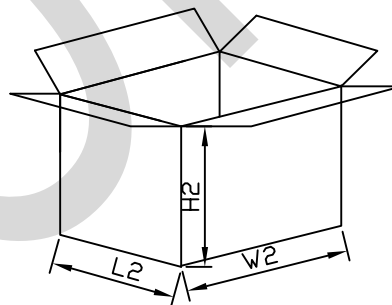
1.Reel Dimensions



2.Inside Box



3.Outside Box



Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
Size	mm	φ	A	B	L1	W1	H1	L2	W2	H2
		330	70	15	335	335	43	360	360	360
QTY	PCS	Smallest package,5000PCS/reel			10,000PCS,2 reel in total			80,000PCS/carton,8 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm									