TOSHIBA Zener Diode Silicon Diffused-Junction Type

U5ZA53C

Best Suited for Overvoltage Protection of Electronic System:

Electronic System for Use in Automobiles

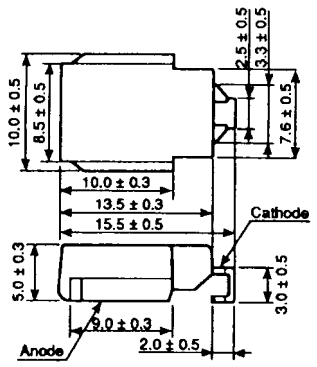
Electronic System for Commercial Use

Electronic System for Industrial Use

For Communications, Controls, Measuring Instruments, etc.

- High surge power withstanding capabilities that absorb load dump surge.
- Excellent surge responsibility for steep surge absorption.
- Surface mount type is available for easy applications.

Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	3-11J2A

Weight: 2.5 g (typ.)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Allowable power dissipation (Note)	P	5	W
Non-repetitive peak reverse surge current (see figure 1 for the exponents.)	I_{RSM}	45	A
Peak one cycle surge forward current (single half sine-wave, t = 10 ms)	I_{FSM}	700	A
Junction temperature	T_j	−40 to 150	°C
Storage temperature	T_{stg}	−40 to 150	°C

Note: Lead tip temperature T_L = 25°C

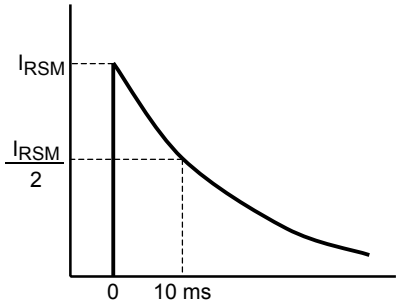
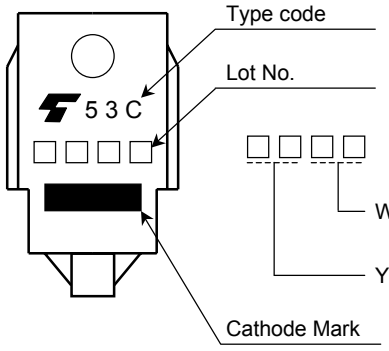


Figure 1

Electrical Characteristics (Ta = 25°C)

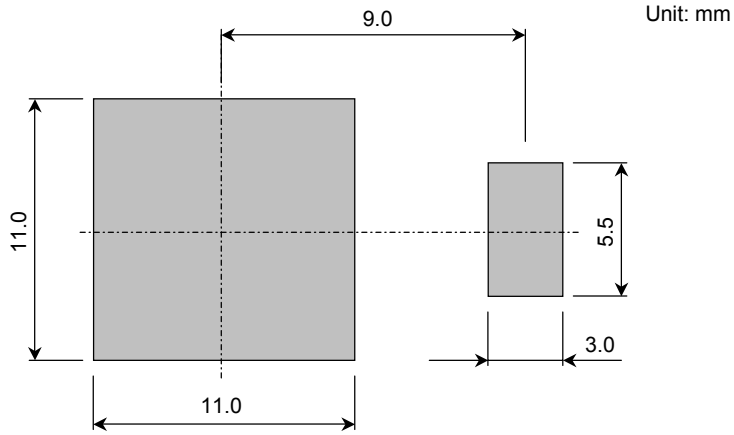
Type No.	Zener Voltage V_Z [V] (I_Z = 10 mA)			Operating Resistance r_d [Ω] (I_Z = 10 mA)	Temperature Coefficient α_T [mV/°C] (I_Z = 10 mA)		Forward Voltage V_F [V] (I_F = 6 A)	Reverse Current I_R [μA] (V_R = 42.4 V)
	Min	Typ.	Max	Max	Typ.	Max	Max	Max
U5ZA53C	47.7	53.0	58.3	65	45	70	1.2	10

Marking



Code	Type
53C	U5ZA53C

Standard Soldering Pad



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