

MA840

Silicon epitaxial planer type

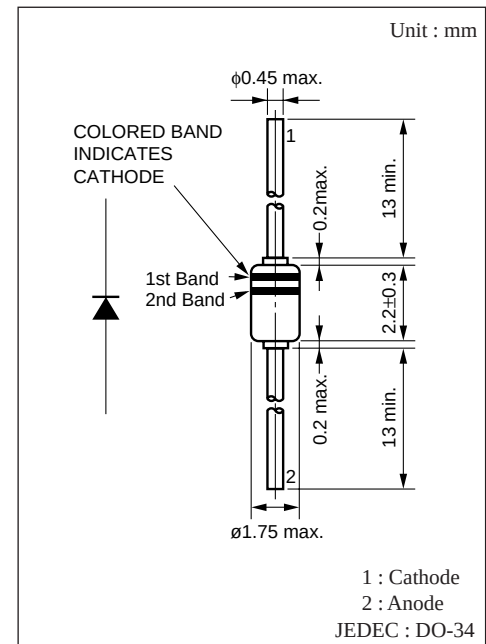
For UHF and VHF tuner AFC

■ Features

- Super-small envelope (DO-34) enabling automatic 5mm pitch insertion
- Small series resistance r_D
- Large variable capacity range

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	32	V
Peak reverse voltage	V_{RM}	34	V
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	– 55 to +150	°C



■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Forward voltage (DC)	V_F	$I_F=100\text{mA}$			1.1	V
Reverse current (DC)	I_R	$V_R=30\text{V}$			10	nA
Terminal capacitance	C_t	$V_R= 2\text{V}, f= 1\text{MHz}$	10.5		16	pF
		$V_R= 10\text{V}, f= 1\text{MHz}$	3.3		5.7	
Capacitance ratio	$C_{t(2V)}/C_{t(10V)}^*$		2.5		3.4	—
	$C_{t(6V)}/C_{t(10V)}^*$		1.64			—
Series resistance	r_D	$C_D= 9\text{pF}, f= 470\text{MHz}$			1.2	Ω

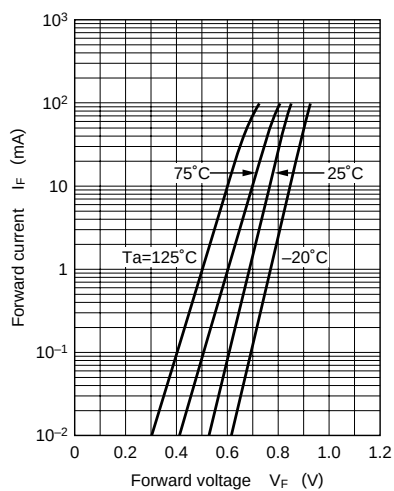
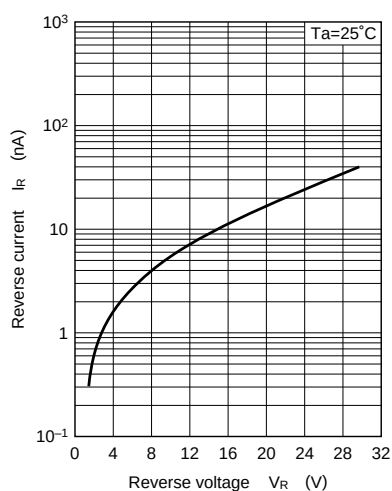
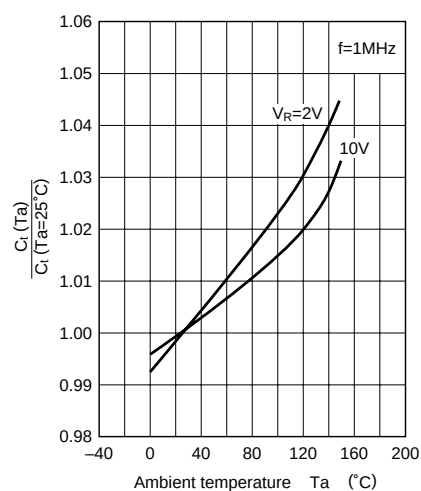
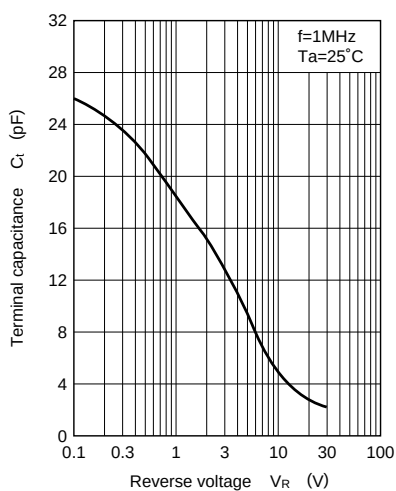
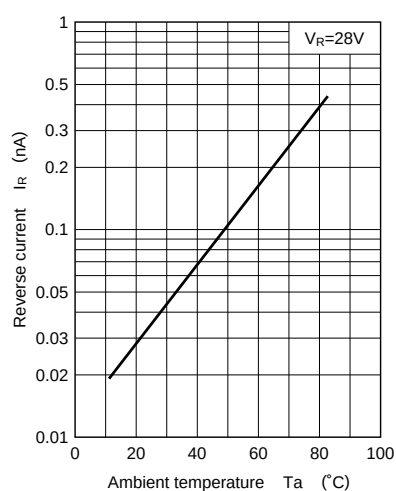
❖ Rated input/output frequency : 470MHz

* C_{t2V}/C_{t10V} , C_{t6V}/C_{t10V} rank classification table

Class	A	B	M
$C_{t(2V)}/C_{t(10V)}$	2.5 to 3.0	2.8 to 3.4	2.8 to 3.4
$C_{t(6V)}/C_{t(10V)}$	—	—	>1.64

■ Cathode Indication

Class	A	B	M
1st band	Light Blue	Light Blue	Light Blue
2nd band	White	Green	Light Blue

$I_F - V_F$  $C_D - V_R$  $C_t - T_a$  $C_t - V_R$  $I_R - T_a$ 

C_t rank classification

